New Perspectives on Historical Latin Syntax 4

Complex Sentences, Grammaticalization, Typology

Philip Baldi
Pierluigi Cuzzolin
Editors

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List of abbreviations

[anim]	animate (as semantic feature)
[def]	definite (as semantic feature)
[hum]	human (as semantic feature)
1st	first person
2nd	second person
3rd	third person
abl.	ablative
abs.	absolute
acc.	accusative
AcI	*Accusativus cum Infinitivo*
adj.	adjective
adv.	adverb
AG	adjective-genitive (order)
ALat.	Archaic Latin
AN	adjective-noun (order)
Arm.	Armenian
AS	Anglo-Saxon
Av.	Avestan
BCE	before the Common Era
Catal.	Catalan
CE	in the Common Era
Celtiber.	Celtiberian
Class.	Classical
CLat.	Classical Latin
coord.	coordinating
cop.	copula
dat.	dative
decl.	declension
deict.	deictic
det.	determiner
DG	determiner-genitive (order)
ELat.	Early Latin
erg.	ergative

Eng.	English
fem.	feminine
Fr.	French
fut.	future
Gaul.	Gaulish
gen.	genitive
Ger.	German
Gk.	Greek
GN	genitive-noun (order)
Goth.	Gothic
Heb.	Hebrew
Hitt.	Hittite
Hung.	Hungarian
IE	Indo-European
imperat.	imperative
impf.	imperfect
indic.	indicative
infin.	infinitive
instr.	instrumental
interrog.	interrogative
Ir.	Irish
It.	Italian
Lat.	Latin
Lep.	Lepontic
Lith.	Lithuanian
LLat.	Late Latin
loc.	locative
masc.	masculine
Med.	Medieval
ME	Middle English
MFr.	Middle French
MHG	Middle High German
ModFr.	Modern French
ModRum.	Modern Rumanian
ModSp.	Modern Spanish
N	noun

NA	noun-adjective (order)
NcI	*Nominativus cum Infinitivo*
neut.	neuter
NG	noun-genitive (order)
nom.	nominative
NP	noun phrase
num.	numeral
obl.	oblique
Occit.	Occitan
OCS	Old Church Slavic
OE	Old English
OFr.	Old French
OHG	Old High German
OIr.	Old Irish
OIt.	Old Italian
OLat.	Old Latin
OPers.	Old Persian
OProv.	Old Provencal
ord.	ordinal
OSard.	Old Sardinian
Osc.	Oscan
OSlav.	Old Slavic
OSp.	Old Spanish
OSV	object-subject-verb (order)
OV	object-verb (order)
OVS	object-verb-subject (order)
pass.	passive
Paelign.	Paelignian
perf.	perfect
pers.	person
PIE	Proto-Indo-European
pl.	plural
Port.	Portuguese
PP	prepositional phrase
pred.	predication
pres.	present

pron.	pronoun
Prov.	Provencal
ptc.	particle
ptcp.	participle
Rom.	Romance
Rum.	Rumanian
Russ.	Russian
Sard.	Sardinian
sg.	singular
Skt.	Sanskrit
Slav.	Slavic
SOV	subject-object-verb (order)
Sp.	Spanish
spec	specifier
subj.	subject
subjunc.	subjunctive
SVO	Subject-verb-object (order)
Sw.	Swedish
Umbr.	Umbrian
V	verb
Ved.	Vedic
VO	verb-object (order)
voc.	vocative
VOS	verb-object-subject (order)
VSO	verb-subject-object (order)
W.	Welsh

Other abbreviations

BTL	*Bibliotheca Teubneriana Latina*
CLE	*Carmina Latina Epigraphica*
cod./codd.	codex/codices
EDH	*Epigraphic Database Heidelberg*
ed. princ.	*editio princeps*

IG	*Inscriptiones Graecae*
Lex XII tab.	*Lex XII Tabularum*
ms/mss	manuscript/manuscripts
OLD	*Oxford Latin Dictionary*
sc.	*scilicet* (that is to say)
s.v./s.vv.	under the word/s
ThLL	*Thesaurus Linguae Latinae* (textual citations follow *ThLL* conventions)
v.l./vv.ll.	*varia lectio* (alternate reading/s)

Special signs

::	indicates speaker switch in dialogue
←	is replaced by
→	onward
<	develops from
>	develops into
*	indicates a reconstructed form (acc. to context)
*	indicates an ungrammatical sentence (acc. to context)

Philip Baldi and Pierluigi Cuzzolin

Epilegomena

1. Retrospective

With this volume (the last of four) we conclude the publication of *New Perspectives on Historical Latin Syntax*. It was about twelve years and 2,500 pages ago that we began serious work on this project. With the appearance of this volume, we have finally arrived at the point of assessment and evaluation, the point when we can ask whether we have met the expectations we set for ourselves when we first formulated the idea for this historical syntax in 1997.[1]

Throughout the life of this enterprise, we have at various times been forced to deal with unexpected surprises and disappointments, both of the scientific type and of the personal type. For example, it was unexpected for us to learn that, despite their widely different cultural and linguistic relevance for Latin, neither Greek nor Semitic languages had any lasting effect on the core syntax of Latin beyond literary artifacts and translationese (Calboli, this work, vol.1, and Rubio, this work, vol.1). And while we might have predicted this of Semitic, that is, Hebrew and Aramaic, our expectations concerning Ancient Greek were otherwise, especially given the intense and centuries-old relationship between speakers of Greek and Latin. In principle Greek could have really influenced the core syntax of Latin but apparently it did not, beyond the superficial, and impermanent, adoption of some calqued constructions (see Cuzzolin, this vol.). Given the centrality of Greek as a contact

1. The history and methodology of this project are recounted in some detail in the *Prolegomena* to volumes 1–3 of the current work. Rather than repeat these easily accessible paragraphs, we have chosen to provide a retrospective assessment of the final product in the form of this final set of prefatory remarks, which, despite its placement at the beginning of the volume, we have chosen to call the *Epilegomena*. This brief introduction should prove more revealing than another iteration of a hopeful *Prolegomena*.

language with Latin, this led us to conclude in sum that *borrowing* is not a potent factor in the history of Latin syntax.[2]

Gaps in coverage remain a concern for us, the most serious being the absence of chapters on negation, non-finite subordination, voice, and a few others.[3] But regrettable as these gaps may be, we nonetheless dare to believe that this historical syntax will earn its place among the standard handbooks on Latin and, furthermore, we are optimistic that it will maintain that position for many years to come. The reasons for our confidence are clear: the contents of these volumes represent serious effort by serious people, whose work is carried out in timeless frameworks which will not expire with the next theoretical development or position-shift in syntactic theory. The combination of solid philology and accessible linguistics will, we hope, preserve this as a handbook not only for the present, but for the future as well.

When we began this project in the late 1990s, our methodological position was that a functional-typological model, supplemented by the standard structurally based approaches on which historical linguistics was founded, could reveal new phenomena to add to the database of Latin syntax and new generalizations concerning the way those phenomena change over time. Put differently, we recognized that just as there is no one cause of syntactic change, so is there no single approach appropriate to explain all types of change found in the history of languages; we would need to expand our framework beyond the standard one in order to capture all the changes which had taken place throughout the history of Latin. The factors responsible for the loss of the optative mood in Latin, for example, are not the same as those behind the rise of prepositions, or the shift from dominant SOV to SVO word order. Analyzing the many different types of diachronic change in Latin would require an open-eyed and unbiased approach to the data and to the available methods.

2. Also true for Celtic and Etruscan (Joseph Eska and Marco Mancini, pers. comm.). We originally planned to extend our coverage to include both Celtic and Etruscan, asking Eska and Mancini to prepare chapters on the topic, but it turned out that syntactic effects of both languages on Latin were either irrelevant or completely absent. Borrowing is one of the three primary mechanisms of syntactic change, the other two being extension and reanalysis, identified by Harris and Campbell (1995); on the effects of language contact more generally, see Drinka (2010). For a demonstration of *morphological* effects of neighboring Sabellic languages in Latin, see Joseph and Wallace (1987).

3. See the *Prolegomena*, volumes 1–3, for elaboration.

Our authors agreed, and we embarked on our mission to trace the evolution of Latin syntax from Proto-Indo-European to Gregory of Tours with a methodological open door.

Syntax is sensitive to many influences, system-internal (e.g., semantic, morphological, phonological) and system-external (e.g., sociolinguistic, pragmatic, functional), and the total picture can only be seen through a wide-angle lens capable of viewing all linguistically relevant phenomena, both internal and external, driving change. It is out of this notion that our original “holistic” approach emerged, in which textually based syntactic data were analyzed in light of insights from different but complementary methodological programs, especially those associated with functionalism and typology (see the *Prolegomena* to vols. 1–3). In an ideal world, when combined these approaches would be sufficient to attain an overarching result, an integrated analysis of aspects of Latin syntax and its long-term development.

But alas, the world is not ideal, nor are the people who populate it, including the editors of this collection. The reality which we ultimately confronted as the four volumes of this historical syntax took shape was that “functional-typological” arguments were not sufficient by themselves as an analytical framework to deal with all the diffferent types of linguistic phenomena in the long-term history of Latin, not even when supplemented by structurally based analysis, which we always knew would figure prominently in our collective efforts. What we didn’t anticipate was that pragmatics would play the expanded role that it did, namely that communicative strategies, information packaging, and other extra-syntactic processes would play a major part in the explanation of variation and change in the syntax of Latin. As for typology, this discipline is currently engaged in some fundamental methodological dialogue which promises to revise some of its basic theoretical grounds.[4] One of the results of this rëevaluation for the current project is that, even if the time span of Latin is sufficient to try to sketch a long-term typological develop-

4. See, for example, recent issues of *Linguistic Typology* (http://www.reference-global.com/loi/lity). We do not mean to suggest that typology has no applicability to linguistic, especially diachronic, analysis. Indeed, classic works such as Comrie (1989) and Croft (1991, 2003), to mention only two of the most obvious ones, remain fundamental. What we are suggesting is that from a diachronic point of view, a straight typological approach is intended to capture only partially all the phenomena that present themselves.

ment, what remains debatable, in our opinion, is the typological foundation of that development. Furthermore, we probably did not adequately evaluate the power exerted by the literary norm on the language of our texts, and the fact that the texts that escaped from this influence are relatively few in number. In this sense a typological approach, when applied to the history of one single language such as Latin, still needs some refinement.

We will not engage in a full methodolgical evaluation of the various chapters here; we leave it to the reader to discover and evaluate the methodology of each contribution and ultimately to assess the appropriateness of the approach without coaching from the editors. Suffice it to say at this point that the full arsenal of methodological approaches is brought into play throughout these chapters. In the final chapter of this volume, we offer a more detailed assessment of the methodological and empirical findings of this historical syntax.

A final word on diachrony: some linguistic phenomena by the very nature of their evidentiary base allow for a deep diachrony, in some cases all the way back to Proto-Indo-European, while others permit no access to the Proto-Indo-European expression type. When we began assembling the subject areas that would eventually fill these volumes, as well as those that were never completed, we imagined that each chapter would address a broad chronology, from Late Proto-Indo-European, or at least Proto-Italic, to Late Latin. This proved to be too optimistic a view about the time span in a good number of cases. For some phenomena, the Proto-Indo-European situation is too cloudy, lacking the kind of hard data on which reliable reconstruction relies. An example of such a topic might be conditional sentences, or complex sentences generally, which seem to demand sophistication in syntactic reconstruction which is as yet unrealized under any methodology. For others the Late Latin situation is too diffuse to permit diachronic generalizations, as in the case, for example, of sentence particles. The point is, every contribution in these volumes has a diachronic focus, but the extent of time covered by the specific analyses varies from chapter to chapter.

Regardless of the specific outcomes of the individual chapters, of their focus, or of their methodology, we are confident in our assertion that the work contained in these volumes has taken us further in our understanding of syntactic change in Latin than we have been previously, and we hope to have established a kind of standard for future historical syntaxes of other

languages. In the final chapter of this volume, we focus our attention on seven syntactic changes in the history of Latin whose explanation in a certain sense tests this assertion. *Censeant lectores!*

2. Volume 4

The fourth and final volume of *New Perspectives on Historical Latin Syntax: Complex Sentences, Grammaticalization, Typology*, contains ten chapters, including a brief essay by Concepción Cabrillana introducing chapters 2 through 6, which all deal with some aspect of adverbial subordination. Another complex sentence type taken up in this volume is the Latin relative clause, followed by a chapter on the diachronic syntax of comparatives and superlatives, one on grammaticalization phenomena in the history of Latin, and a concluding assessment by the editors. As in the previous three volumes, we provide here a brief summary of each chapter, which is designed only to inform the reader of the content and central ideas.

In her chapter, Concepción Cabrillana approaches consecutive and purpose clauses together, due to the formal and substantive interrelations between the two constructions. The author starts from a dual perspective: namely, consideration of the semantic functions that may be expressed by a linguistic form and the specific way in which such functions may occur. After carrying out a revealing diachronic study of the frequency of such forms of expression, Cabrillana analyses the relevant semantic features that characterize and might differentiate the relations of purpose and result, the most prominent of which is the feature concerning the notion of control. Yet, given the fact that semantic features have proven insufficient for fully characterizing the two relations under analysis, a study of the syntactic features or of those features with implications at the syntactic level is carried out. Cabrillana shows that, even at the syntactic level, the distinctive features of both relations serve to distinguish them only when the clauses have paradigmatic features; in fact, the differentiation between purpose and result constructions blurs considerably in diachronic perspective.

In their chapter on conditional and concessive clauses, Alessandra Bertocchi and Mirka Maraldi offer an analysis of Latin conditionals based on the three-way distinction among content, epistemic, and speech act conditional

clauses, as suggested by Sweetser (1990). Content conditionals relate states of affairs and are generally used by the speaker to make predictions; epistemic conditionals allow abductive inferences to be drawn; and speech act conditionals specify a condition not for the truth but for the legitimacy of asserting the apodosis. While neither the protasis nor the apodosis of conditionals entails the truth of the proposition, in concessives both clauses – main and subordinate – must be true. Between conditionals and concessives are the so-called "concessive conditionals", where the main clause entails the truth of the proposition while the subordinate does not.

In his chapter on causal clauses, José Miguel Baños begins by distinguishing two semantic types of causal clause, a distinction shared by Latin and many other languages. This distinction is based on the different syntactic and semantic nature of the two types, as well as by their specific adverbial subordinators, and is pertinent to the description of causal conjunctions in Latin and their associated processes of grammaticalization. It is especially relevant as regards the analysis of the characteristics (semantic, syntactic, and pragmatic) which define and distinguish the conjunctions which more frequently and explicitly express a causal relationship in Archaic and Classical Latin: *quod, quia*, *quoniam*, and *quando*. With regard to this characterization, Baños points out some fundamental changes which affect the system of causal clauses in Late Latin and which help toward an understanding of developments in the Romance languages.

In his chapter "Temporal clauses", Friedrich Heberlein shows how temporal clauses perform their function along a continuum between the semantic pole ("temporal reference") and the pragmatic pole ("explicative" or "expositive information"). Temporal functions – time location, time-extent, and their variants – are represented on the basis of the "time-network" discussed by Kortmann (1998; 2001), and pragmatic functions on the basis of research on clause linking since Lehmann (1988). A conspicuous feature of the Latin time network is the consistently high degree of polysemy in diachrony, which results from the fact that certain tendencies for reducing polysemy in Classical Latin (for instance, the development of the "*cum historicum*" construction as a marker of background information) are outweighed by conservative factors, such as the stability of the old polyfunctional subordinators, or of the "absolute tense" in the indicative related to speaker-deixis. Moreover, in post-Classical Latin there appear a number of polysemic innovations like

the extension of subordinators into adjacent domains of the time network, or the loss of modal distinctions as a result of the spread of the subjunctive.

In her chapter on comparative clauses, Eusebia Tarriño demonstrates the existence of two main types of comparative clause in Latin: comparative clauses of *degree* and comparative clauses of *manner*. In both of these types a comparee and a second term or standard are judged on their similarity. Suffixes (*-ior/-ius*) or particles (*magis*, *plus*, *minus*, etc.) are used as degree markers. As a standard marker, either the ablative or the particle *quam* is possible. In comparative clauses of manner, the way a situation is performed is compared with the standard, usually introduced by the conjunctions *tamquam*, *ut*, *sicut*, *quomodo*, and so on. Tarriño shows how comparative clauses of manner can be integrated either at the representational or at the interpersonal level, and how pseudocomparative structures (*potius quam*) express a preference for or a substitution of two alternatively possible events.

In her chapter, Anna Pompei aims to provide an analysis of Latin relative clauses. After a sketch of their structure in Latin, the typology of both matrix and relative clauses is detailed. Matrix clauses differ in the realization of the pivot and its semantic consequences. Relative clauses vary in their position with regard to the lexical head and the matrix clause, relativization operations, the Accessibility Hierarchy, and relativization strategies. A proposal for a typological classification of Latin relative clauses is presented. On the basis of this taxonomy, Pompei puts forward a hypothesis for the reconstruction of their evolution, and its main features are illustrated through the different stages in the history of Latin.

In his chapter "Comparative and superlative", Pierluigi Cuzzolin shows how comparatives and superlatives in Latin developed consistently from a general point of view. Tested against the most frequent comparative patterns occurring in the world's languages, he shows how Latin exhibits four of them in the oldest sources, with several documented variants. Two of these, however, namely the separative comparative and the particle comparative, were the most common choice. From a typological viewpoint, the most relevant development was the fact that the synthetic expression of the morphological case that marked the standard was reanalyzed as formed by the pivot and the morphological case. This development was to give rise to the common pattern for the expression of comparison in the Romance languages. Cuzzolin

also shows how the superlative followed the same developmental path as the comparative.

In her chapter "Grammaticalization in Latin", Michèle Fruyt illustrates several particularly interesting cases of grammaticalization in the context of the other main elements of word-formation, in particular agglutination, lexicalization, demotivation, reanalysis, and analogy. Fruyt analyzes the two most common types of grammaticalization, the freezing of an inflected word (e.g., adverb *continuo*, subordinator *quia*), and the agglutination of several words into a single lexeme (starting from a nominal, prepositional, or verbal syntagm, or from a sequence of several non-inflected words). She also describes the semantic changes that occur when a lexeme with a lexical value becomes a functional (or grammatical) lexeme, or when a grammatical lexeme becomes even more grammatical. Fruyt then looks at the development of particular cases of grammaticalization in the formation of the lexemes of negation (*non, nihil, nemo*), the evolution of endophors and deictics, some processes of paradigmatization, and the development of *habeo* + *-*to-* and *habeo* + infinitive. Fruyt also shows how some quantifiers developed from the grammaticalization of names of body parts and of inanimate entities denoting a small quantity, while some prefixes became negative bound morphemes and some originally lexical adverbs became morphemes of intensification. Finally, she investigates the way in which some cyclic renewal processes (negation with *non*, causative verbs like *cale-facio*) operate in Latin.

In their final "assessment" chapter, Baldi and Cuzzolin revisit some of the fundamental questions that were raised throughout the four volumes of this work, concentrating on the core areas of shifts in word order, the erosion of nominal and pronominal endings, prepositional usage, the development of definite and indefinite articles, the genesis of periphrastic auxiliaries, the rise of the comparative particle *quam*, and the development of the *dicere quod* complementation strategy. From these they address issues surrounding the determinants of syntactic change (structural, typological, functional, and pragmatic factors), and arrive at the unanticipated conclusion that functional factors are the most important in syntactic change, followed by pragmatic, structural, and finally typological considerations. Baldi and Cuzzolin also argue that "drift", which has come in and out of discussions on syntactic change since it was proposed by Sapir in 1921, is little more than appealing myth.

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Concepción Cabrillana

Adverbial subordination: Introductory overview*

1. Introduction

This overview is concerned with the various semantic relations that can be introduced by adverbial subordinators in the Latin language. The fact that the different adverbial clausal relations are dealt with in different chapters of volume 4 of this work makes it useful to offer a brief introduction that discusses some general issues affecting the entire topic, both conceptually and organizationally. These introductory remarks cover the chapters of Cabrillana, Bertocchi and Maraldi, Baños, Heberlein and Tarriño.

2. The concept of subordination: Adverbial phrases and studies of relations

In the classification of the different sorts of adverbial phrases, reference is commonly made to a *semantic* type, although the classification of each semantic type within "subordinate" adverbial clauses has a clear *syntactic* reference. It seems necessary, therefore, to clarify the sense in which key concepts are understood here, such as subordination, as well as the implications that are derived from it.

The functional perspective can be adopted in general. Thus, in one of the most recent functional approaches (Cristofaro 2003: 2), subordination is understood as "a particular way to construe the cognitive relation between two events, such that one of them (which will be called the dependent event) lacks an autonomous profile, and is construed in the perspective of the other event (which will be called the main event)". In this way, it is a matter of report-

* Because adverbial clauses dominate this volume in a broad thematic way, the editors deemed it useful to include a short unifying essay on the topic. The following introductory overview was prepared by Concepción Cabrillana to meet that need.

ing about the different functions coded by the different adverbial subordinators from a functional point of view (notional, cognitive, semantic, syntactic, pragmatic), in which the relation between language structure and language function is taken into account. Naturally, the typological and historical criteria of this work are included in these chapters.

This overview is structured in accordance with the different functions that adverbial subordinators can introduce, and in an order that attempts to reflect the greater affinity that exists between these functions on several levels. Thus, the functions are presented in the following order: purpose and result clauses, conditionals and concessives, causals, and temporals. For obvious thematic reasons, the comparative modals are dealt with in the same volume, which includes the chapter on comparison (Cuzzolin, this vol.).

In addition, volume 2 of this work includes a chapter on nominal "Adverbial Phrases" (Luraghi): noun phrases and prepositional phrases (excluding adverbs), which, in general, are not required by the verbal valency. This chapter should also be discussed here because the author reaches conclusions concerning important issues similar to those in the chapters on the various types of adverbial sentence subordination; among the most important are: (i) the verification of nondiscrete relationships between different semantic functions (especially, for instance, between source and origin; agent and force; purpose, cause, and reason; manner, instrument, and means); (ii) the usefulness of the application of instrumental procedures such as prototypicality; (iii) the relevance of certain features (including, among others, control, intentionality, and manipulation) in the description and differentiation of different semantic notions; (iv) the growing confusion in the codification of various semantic relationships and the expansion of certain codifications to the detriment of others, following diachronic progress. This coincidence between adverbial relationships from different syntactic levels in independent analyses makes the conclusions reached in the various chapters even more solid, showing that Luraghi's typological tests are valid for all sorts of adverbial phrases.

3. Treatment of adverbial clauses

The specificity and particular characteristics of each of the functions studied justifies their separate treatment. In this way, even though a common plan of

study could, in principle, contribute to the clarity in the exposition of the corresponding contents, it was deemed preferable to give priority to the demands that logic, nature, and specific features themselves impose on each type of adverbial clause. This criterion helps to offer a more adjusted and precise view of the special features that are linked to each construction, such as its degree of dependence on the main event or the level of semantic polyfunctionality of the introductory element in each case, to name just a few. Take, for example, the combined study (Cabrillana) of purpose and result with respect to their formal, semantic, and syntactic affinities; these affinities are examined in light of implications pertaining to the linguistic levels just mentioned.

3.1. Purpose and result

Cabrillana starts from a combined presentation of (i) the semantic functions expressed by a given linguistic form and (ii) the specific forms that express the two semantic functions under study. A diachronic study of frequency in these particular forms is followed by semantic and syntactic analysis of the more productive constructions. First, Cabrillana examines the semantic features that characterize and can distinguish the ideas of purpose and result in a relevant way: possibility and factuality, volition, animacy, control, prospectivity, and the semantic notion of the governing verbs, with the feature of control becoming the most relevant to the distinction. Some close semantic relations are studied briefly, such as conditionals, comparative modals, and causals. The analysis shows the existence of a nondiscrete relation among various semantic notions, especially between result and purpose. The fact that the semantic features prove insufficient for the full characterization of the relations in question make a syntactic analysis necessary; in this analysis, the peculiar syntactic status of purpose and result constructions is approached first, followed by an examination of the (formal) features with syntactic implications: correlation, nominalization, polarity, verb tense, and layer of integration. Despite thorough analysis, a clear distinction between purpose and result constructions can only be made by dealing with examples that have the paradigmatic characteristics of these constructions; the existence of borderline examples becomes clearer and more frequent over time.

3.2. Conditionals and concessives

Similarly, due to the logico-semantic connection between conditionals and concessives, both types of clause are studied in the same chapter (Bertocchi and Maraldi). The authors examine different types of conditionals – content, speech act, and epistemic conditionals – in light of the relation between protasis and apodosis, combining this analysis with diachronic analysis. When dealing with the concept of the "conditional perfection" (see van der Auwera 1985, 1997), the authors examine which conditional contexts are candidates for "conditional perfection" and, specifically, in which way Latin expresses necessary conditions; there is a distinction between necessary and sufficient conditions, which are, however, strictly intertwined.

The chapter studies in detail the various elements introducing the negative conditional adverbial idea (*nisi*, *si non*, *ni, si minus, sin*) and its main characteristics; the same procedure is followed with the complex conditional connectives (*si modo*, *si tamen*, and *si quidem*), which belong to speech act conditions.

As in the chapter by Cabrillana, there is a study of the relations among close semantic notions, such as those holding among conditionals, cause concessivity, and adversativity.

In the section dealing with concessives, the authors distinguish true concessives from concessive conditionals (in their three types: universal, alternative, and scalar conditionals), although in some instances the borderline is not easy to draw. The one-by-one treatment of the different conjunctions which introduce the two semantic relations allows complete characterization: true concessives (*quamquam, etsi, tametsi*, and *tamenetsi*) and concessive conditionals (*quamuis*, *etiamsi*). In a complementary way, the notion of contextual concessivity is taken up: under this notion the authors collect various Latin constructions that can acquire a concessive or concessive conditional reading on the basis of the context of occurrence. In fact, the subordinators involved in these constructions are normally associated with other semantic relations, so that the concessive relation can only be derived contextually.

3.3. Causals

In the chapter dedicated to causal clauses (Baños), attention is paid to the typological fact that the notion of cause is situated in the "hard core" of semantic relationships between clauses; the centrality of causal clauses is justified, among other reasons, because the cause is, together with the condition, the type of adverbial relationship which presents the greatest level of lexicalization. As a consequence, cause is the semantic relationship which presents the greatest number of subordinating conjunctions.[1]

Two criteria play a crucial role in this description of causal clauses: (i) the distinction between external and internal causality and (ii) the characterization of the many linguistic elements which have coded the causal relation in various stages of its diachronic evolution. This type of analysis reports the processes of grammaticalization and the functional exchanges which have taken place during the history of Latin.

Relating to the first criterion, the author adduces the various features which distinguish clauses corresponding to external or internal causality, among which are the following: the possible semantic restrictions of the subjects, the relative position of the causal clause, and the fact that each semantic type of causal clause is integrated at different levels of clause structure and has different distributional properties. For the characterization of the different linguistic elements that can introduce subordinate causal relations, a distinction is made between two types of adverbial subordinators: (i) conjunctions which have exclusive or primary causal content from the first testimonies of their grammaticalization as such (*quod*, *quia*), and the interrogative forms *quare* and *cur*, converted into causal conjunctions, especially in Late Latin; (ii) conjunctions which were first lexicalized with other adverbial content and have secondary or merely contextual causal (*quoniam, quando, dum*, *postquam*, *ubi*, *cum*), modal (*ut* + indicative*, quomodo, tamquam*), purpose (*ut* + subjunctive), or quantifying (*quatenus*) content, reinterpreted as causal conjunctions. Taking into account this distinction, the author examines the specific and distributional characteristics that are observed in each of these

1. Luraghi makes the same point in her chapter "Adverbial phrases" when introducing the semantic notion of Cause.

conjunctions. He harmonizes the perspectives of their morphosemantic origin, their grammaticalization, and their consequent outcomes in Late Latin and in the Romance languages. Because of the specific distinction between *quod / quia* (regular marker of causal adjuncts) and *quoniam* (regular introducter of prototypical disjuncts), a section is devoted to studying their different distributional properties; in this analysis, various relevant criteria are handled: possibilities of coordination, answer to a causal interrogative, use of correlatives, possible nature of complementizers, focalization, illocutionary force and polarity, use of subjunctive, sequence of tenses, and word order.

3.4. Temporals

As for temporal clauses (Heberlein), it is obviously necessary to take into account the various "semantic subfunctions", which include one of the four major semantic networks – together with conditionality, causality, and concessivity – constituting the semantic space of adverbial relations, in Kortmann's (1997) sense. Heberlein starts from the relation between the basic concept of time and temporal clause, dealing with the semantic and pragmatic extensions of the temporal clause, and aspects of the hierarchization: subordination and desententialization; this last phenomenon is analyzed in relation to the verbal categories of tense, mood, and aspect. In its internal structure in individual time relations or semantic functions, *Aktionsart* interacts with tense / aspect and lexical information such as the meaning of the subordinator. Particularly clarifying is the distribution of subordinators within the semantic map of the time network which is backed up with a wide corpus of texts; for this purpose, he makes use of the semantic functions established by Kortmann: *terminus a quo*, anteriority, immediate anteriority, simultaneity overlap, *terminus ad quem*, posteriority, and contingency.

The analysis of the temporal subordinators is oriented toward the categories of diachronic development, level of morphological complexity, and semantic and syntactic multifunctionality; an example of this last criterion is put forward specifically in the study of *cum* + subjunctive and leads to consideration of a close semantic relation: the patent semantic continuum which exists among the various notions expressed by adverbial subordination. The author proposes an analysis of the semantic properties of each of the seman-

tic "subfunctions"; these properties have a decisive influence on the formal expression of grammatical properties (such as clause position, tense/aspect, and modality), which are also analyzed.

This chapter shows that Latin fully conforms to Kortmann's findings, namely that the time network is the goal of extensions from the locative and modal networks (*ubi* or *ut*), that it is itself the source of extensions into the causal-conditional-concessive network, and that these extensions are unidirectional.

3.5. Comparatives

As for comparative clauses, a clarifying approach is made: analysis not only of comparative clauses of degree but also of comparative clauses of manner (Tarriño). The author analyzes their elements, giving special attention to the introductory elements of both types of clauses. She also clearly explains the status of these two types of clauses at the syntactic, semantic, and pragmatic levels.

The necessity for a coreferential element and semantic affinity between the parts of the alternative is something to be underlined as a clearly differentiating feature of the comparative clause of degree from the other constructions studied in this chapter. With regard to its syntactic status, the correlation of the comparative clause of degree is described as co-subordination, a situation between coordination and subordination; more specifically, it is shown how the correlative element is that which occupies a syntactic place in the main sentence, whereas the comparative clause of degree remains as an extension: therefore, the comparative clause of degree is not a true embedded structure. This feature also represents a difference respecting comparative clauses of manner, which can be considered subordinate clauses, due to their greater degree of syntactic integration into the main clause.

The author devotes some paragraphs to lexical comparison, and another clarifying section to pseudo-comparative clauses and to the cognitive mechanisms implied in these types of clauses, as well as to their special pragmatic functionality.

Comparative clauses of manner are understood as clauses expressing the way the main action takes place by comparison with a situation or element

whose way of being or acting is known; this situation or element is used as a standard or point of reference. The author alludes to the fact that comparison does not always express manner, but it has the possibility of expressing other meanings usually described as causal, adversative, restrictive, parenthetical, and so on. The distinction between the representative and presentative levels is shown to be very useful for accurate description of these possible functions of the comparative clause of manner. In this way, at the representative level a comparative clause of manner can function as an argument or satellite adjunct of the predicate; at the presentative level, comparative clauses of manner function as disjuncts and can be proposition satellites – attitudinal disjuncts – or illocution satellites – style disjuncts. It is at the presentative level that the comparative clause of manner maintains a more diffuse semantic relationship with the main clause, a relationship that can receive various pragmatic explanations, generically interpreted by traditional grammar as possible nuances of the modal comparative clause.

The application of the typological-diachronic approach to the analysis of adverbial subordination makes possible conclusions of a more general character than a traditional study. On the one hand, this approach allows us to locate the characteristics of Latin adverbial relations in the wider field of typological coordinates of other sets of languages; on the other hand, the methodology offers an explanatory view of the historical development of the processes and means of subordination.

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Concepción Cabrillana

Purpose and result clauses

1. Introduction: Clarification of previous concepts and methodologies

In accordance with the approach to the concept of subordination accepted in this chapter (cf. the author's Introduction), purpose clauses (sometimes called "final clauses") are those in which the dependent state of affairs represents the purpose (goal) that must be achieved by the main state of affairs. On the other hand, in result clauses (sometimes called "consecutive clauses") the dependent state of affairs represents the result (outcome) of the main state of affairs (i.e., "result relations" in Cristofaro 2003: 155).

The overall method of dealing with clauses of purpose and result that has been chosen in this chapter can be justified in a variety of ways. (1) In general, and from a semantic-cognitive point of view, in the cause–effect relationship shared by causal, conditional, concessive, purpose, and result clauses, the last two have in common precisely the specific feature that they influence the "effect". Therefore, for modern linguists such as Kortmann (1997: 80–81, 197),[1] both result and purpose clauses would express "result or consequence", although with some clarifications discussed below (Section 3.1). (2) From the formal point of view, the most productive structure in the linguistic representation (*ut* + subjunctive) of the two semantic relations is very similar in many respects.

Despite this, it remains significant that in Cristofaro (2003), purpose clauses are dealt with but result clauses are not, perhaps because the prototypical correlative structure considers them to be more halfway between coordination and subordination (prototypicality is understood as an instrumental procedure suitable for describing some facts; so the notion "prototypical" will be applied to the linguistic fact/construction that possesses all

1. In the same sense, see Quirk et al. (1985: 1108).

or most of the features that identify it as such; cf. also n. 37). This apparent inconsistency raises the question of the syntactic status granted to result relations as opposed to that of purpose relations. In other words, is the presence of correlative structure – an almost essential characteristic in some clausal constructions – the factor responsible for not dealing with functional types such as modal-comparative or consecutive clauses in this approach? In fact, one can speak of a nondiscrete relationship between juxtaposition, coordination, and subordination. In this, one of the intermediate stages would correspond to correlative structures. For reasons of methodological clarity, careful study will be made of the terminology in use. In the clausal types which are the object of study, we refer without distinction to clauses/states of affairs/events/structures that are dependent and independent, main (head) and subordinated (governing-governed). This does not preclude us from trying to clarify the question at hand, which for the time being is only being raised (cf. Sections 4.1, 4.2.3).

In regard to the methodology followed in this chapter, and in keeping with what has proven to be productive in crosslinguistic research,[2] the fundamental options are to examine (1) the functions expressed by a given form, and (2) the specific forms for expressing certain functions. I opt for a combination of the two, although the latter seems more appropriate in the analysis of an individual language. In keeping with that and with the functional approach adopted in this work, I first briefly detail the structures which can carry out the functions discussed in this chapter (Section 2), in order to later pass on to detailed analysis of the more productive constructions. In this analysis, I distinguish functional relations on the semantic level (Section 3) from those on the syntactic level (Section 4). Historical facts, typological considerations, and pragmatic implications of the various constructions are gradually introduced while the functional characteristics and phenomena related to diachronic, comparative, and interpretive aspects that affect them are presented.

2. See Croft (1990: 13), Cristofaro (2003: 13–14, 20).

2. Function and possible syntactic structures

As occurs with other semantic notions, language can express the functions of purpose and result in various ways, which exhibit variations depending, for example, on genre and literary style or stages of historical development. It seems advisable, therefore, for a brief investigation to allow us to visualize the diachronic paths of the various linguistic expressions of the two functions, taking into account their frequency index and literary genre. Table 1 gives approximate text frequencies in Plautus (*Amph.*, *Asin.*) and Terence (*Andr.*, *Haut.*), Sallust (*Iug.*), Seneca (*nat.* 1–3), the *Itinerarium Egeriae*, and Augustine (*conf.* 1–5), considering the distinction of polarity. The amount of text sampled is not extensive but is sufficiently representative of literary periods, genres, and styles.[3] This said, some selected observations can be made on the basis of the data.

Concerning the development of structures that express purpose, and generally:

1. The formalization, so to speak, of the "less marked" always includes the conjunction *ut*, although it appears once in Sallust quite balanced between the non-finite and the relative forms.
2. The formal diversification lessens over time, and more noticeably starting with Seneca.
3. In this process, the nonfinite forms tend to survive more than those in which a relative appears, most likely due to the very nature of the formalization of the relative and its intrinsic function. However, if the data are considered independent of their diachronic evolution, the proportion reached by the nonfinite forms and the constructions with the relative is very similar.

Concerning the development of the structures that express result:

1. Greater formal uniformity is observed than in the case of coding purpose. It must be taken into consideration that the most common grammatical expression entails greater complexity: language tends to make more formal

3. The amount of text to analyze for each author was determined by the extent of the *Itinerarium Egeriae*, one of the sources of Late Vulgar Latin par excellence, which contains almost 19,000 words. The corpus of each analyzed text thus ranges between 19,000 and 21,000 words.

Table 1. Grammatical expression of purpose and result

	Plautus – Terence		Sallust		Seneca		*Itin. Eger.*		Augustine		Frequency	
	N	%	N	%	N	%	N	%	N	%	N	%
A. Purpose function												
ut	50	55.58	11	28.96	27	77.15	19	59.38	30	65.23	137	56.88
Relative	8	8.88	9	23.68	8	22.85	2	–	27	4.34	54	11.20
Non-finite form	6	6.66	10	26.31	–	–	6	18.75	8	17.39	30	12.44
ne	21	23.33	8	21.05	–	–	7	21.87	6	13.04	42	17.42
ut ne	4	4.44	–	–	–	–	–	–	–	–	4	1.65
si	1	1.11	–	–	–	–	–	–	–	–	1	0.41
Total	90		38		35		32		46		241	
B. Result function												
Correl. . . . *ut*	18	75.01	9	100	27	81.82	21	100	6	66.67	81	84.38
ø . . . *ut*	2	8.33	–	–	3	9.09	–	–	2	22.22	7	7.29
Relative	3	12.50	–	–	3	9.09	–	–	1	11.11	7	7.29
ut ne	1	4.16	–	–	–	–	–	–	–	–	1	1.04
Total	24		9		33		21		9		96	

changes so that a specific semantic notion could be understood as such.
2. Taking into account what has been said previously, the parallelisms that can be observed are notable between: (i) comedy and Seneca and (ii) Sallust and the *Itinerarium Egeriae.*
3. As in the case of purpose, flexibility in grammatical formalization is greater in comedy, which possesses features that are absent in the other authors: here we are dealing with the spoken language, prone to the addition of gestural information, which has the form of a dialogue and exhibits a lesser state of evolution than later writings.
4. Finally, and if diachronic considerations are left aside, the coincident frequency of the appearance of forms of expression with greater restrictions must be pointed out: constructions without introductory element and relative structures.

As an introductory example of the grammatical expressions possible in the language to indicate purpose and result, each is exemplified. First I address the most frequent, least restricted structure used to code the two functions under study, *ut* + subjunctive. Then those structures are described which (i) are used by one or the other of the above-mentioned notions, (ii) appear rarely, or (iii) are normally linked to additional selection conditions. The classification of the various grammatical forms lends support to the diachronic account, since, logically, their evolution varies according to the particular coding in question.

2.1. *Vt* + subjunctive

Result (a) and purpose (b) clauses are introduced by *ut* + subjunctive throughout the history of Latin, as demonstrated in (1)–(3).[4]

(1) a. Ter. *Andr.* 277–280: *me … putas, / adeon porro ingratum … / ut neque amor … neque pudor / commoueat neque commoneat ut seruet fidem?*
'do you think me so cowardly, so utterly ungrateful, that neither love nor shame can move or admonish me to keep faith?'

4. The possible presence of a correlative element is addressed below (see Section 4.2.2).

b. Ter. *Ad.* 706: *ego eo intro ut quae opus sunt parentur*
'I'll go in to have the arrangements made'

(2) a. Liv. 1,2,5: *tanta opibus Etruria erat ut iam non terras solum sed mare etiam per totam Italiae longitudinem... fama nominis sui implesset*
'so great was the power of Etruria that the renown of her people had filled not only the inland parts of Italy but also the coastal districts along the whole length of the land'

b. Cic. *fin.* 2,12: *ab aratro abduxerunt Cincinnatum illum ut dictator esset*
'they brought Cincinnatus from the plow that he might be dictator'

(3) a. Boeth. *cons.* 1,4,35: *eccuius umquam facinoris manifesta confessio ita iudices habuit in seueritate concordes ut non aliquos uel ipse ingenii error humani uel fortunae condicio cunctis mortalibus incerta summitteret?*
'and did ever any direct confession of a crime find its judges so well agreed upon exercising harshness, that neither the liability of the human heart to err, nor the changeableness of the fortune of all mankind, could yield one dissenting voice'

b. *Itin. Eger.* 27,6: *nam ut semper populus discat legem, et episcopus et presbyter praedicant assidue*
'in order that the people may always be instructed in the law, both the bishop and the priest preach diligently'

In Late Latin, *ut* begins to be accompanied by another conjunction (*ut quia*, *ut quoniam*, *ut si*), and its older function becomes progressively weaker, until it almost constitutes an equivalent to a colon (":") or to expressions such as "namely". The starting point of this evolution is indicated in the expressions *illud* (*hoc*, *sic*) *ut* (*ut* explanatory), *aequum est ut*, or *persuadeo ut*, not purely of result.[5]

5. See Hofmann & Szantyr (1965: 646).

It must be explained, however, that some texts, such as *de miraculis sancti Stephani* (ca. 425 CE),[6] reveal a significant presence of *ut* with comparative, completive, resultive, and purposive meanings.[7] The features exhibited by these last two constructions appear to be the most frequent ones in the classical period: no correlatives in purpose clauses as opposed to a marked representation of them in result clauses (11 out of 13 cases).

As an introductory element for result clauses, *quin*[8] also increases in frequency, although examples already exist with the presence of negation in Archaic and Classical Latin (4)–(5).

(4) Ter. *Haut*. 67–69: *numquam tam mane egredior neque tam uesperi / domum reuortor quin te in fundo conspicer / fodere aut arare aut aliquid ferre denique*
'I never go out so early in the morning nor return home so late in the evening that I fail to see you digging or plowing or carrying something about on your farm'

(5) Cic. *Verr.* II 3,95: *numquam tam male est Siculis quin aliquid facete et commode dicant*
'the Sicilians are never in such distress as not to be able to say something facetious and clever'

The expression of purpose by conjunctions changed over time: in the late period, for example, the use of *quod* increased considerably. One of its uses – the first example appears in Cyprian – was to replace the *ut* of purpose (6). Among the causes that facilitated this substitution can be cited the cognitive proximity between the notions of cause (which *quod* expresses in great measure) and purpose, the probable morphological confusion between *quod* and *quo* of purpose, and the analogical pressure from parallel constructions such as *ob hoc… quod – ob hoc… ut* or *eo… quod – eo… ut.*[9]

6. And similarly the *Historia Francorum* by Gregory of Tours: see Griffe (1996: 121).
7. See Griffe (1996: 123).
8. See Pisani (1948: 306).
9. Expressions with the meaning of purpose in the late period, with higher or lower frequency, would be, e.g., *pro eo … ut*, *pro hoc … ut* (*ne*), *per hoc … ut*, *in hoc … ut*, *in eo … ut.*

(6) Cypr. *epist*. 62,7: *uini utique mentio ideo ponitur ut Domini sanguis uino intellegatur et quod calice dominico postea manifestatum est prophetis adnuntiantibus praedicaretur*
'therefore, mention is made of wine, that the Lord's blood may be understood and that which was afterwards manifested in the cup of the Lord might be foretold by the prophets who announced it'

The same cognitive proximity between purpose and result could have favored the extension of the use of *quod* to result contexts (7). Other conjunctions that – on rare occasions – replace *ut* in its purpose usage are *dum* and *donec* ((8)–(9)).

(7) Hist. Aug. *Max. Balb.* 17,3: *nulla uox ⟨tam⟩ fortis, nulla oratio tam felix, nullum ingenium tam fecundum numquam fuerit, quod possit publicam felicitatem digne exprimere*
'no voice was so strong, no speech so fortunate, no talent so prolific that it could express public happiness deservingly'

(8) Vet. Lat. *gen.* 19,16: *tenuerunt angeli manus eius et manus uxoris eius et manus duarum filiarum eius dum parceret dominus Deus eis*
'the angels seized his hand and the hand of his wife and the hand of his two daughters so that God the Lord would forgive them'

(9) Lucif. *reg. apost.* 9: *cum sis Arianus, ad hoc te fingis Christianum, donec ueneno haeresis tuae possis inermes sauciare*
'though you are an Arian, you pretend to be a Christian; because of this, you are able to harm the defenseless with the poison of your doctrine'

2.2. Non-finite forms

The construction with conjunctions, albeit the most frequent, does not exhaust the coding of result[10] and purpose relations. In the case of the latter, their expression through nonfinite verbal forms exhibits great variety.

10. Although, in the case of the result clauses, the *ThLL*, s.v. *ad* (*consecutiuum*), includes an unusual case of the construction *ad* + gerund(ive): Cic. *Tusc.* 4,37, see n. 119.

– *ad* + gerundive:

(10) Liv. 9,27,8: *dextra pars, qua et Samnites raris ordinibus aut ad circumeundos hostes aut ne ipsi circumirentur constiterant, latius patefacta stetit*
'the Roman right was drawn up in more open order than usual, as the Samnites opposed to them were standing in thinly extended ranks in order either to surround the enemy or to prevent themselves from being surrounded'

– *ob/propter* + gerundive:

(11) Sall. *Iug.* 89,2: *existumans Iugurtham ob suos tutandos in manus uenturum …*
'thinking that Iugurtha would openly come in order to protect his subjects … '

– *causa/gratia* + gerundive:

(12) Cic. *Catil.* 1,19: *quid, quod tu te … uitandae suspicionis causa ad M. Lepidum te habitare uelle dixisti?*
'what of your having said, … that you were willing to dwell in the house of Marcus Lepidus in order to avoid suspicion?'

– dative/genitive + gerund(ive):

(13) a. Plaut. *Mil.* 745–746: *seruiendae seruituti ego seruos instruxi mihi, / hospes, non qui mi imperarent …*
'I have trained my slaves to serve me, my friend, not to give me orders'

b. Tac. *ann.* 2,59,1: *Aegyptum proficiscitur cognoscendae antiquitatis*
'he sets out for Egypt to study old times'

– supine in *-um*:[11]

(14) Liv. 3,25,6: *uenerunt questum iniurias*
'they came to complain of injustices'

– future participle:[12]

(15) Verg. *Aen.* 2,675: *si periturus abis*
'if you are going away to perish'

– infinitive:[13]

(16) Ter. *Hec.* 345: *filius tuos intro iit uidere, . . . , quid agat*
'your son has gone in to see how she is doing'

This variety of possible purpose expressions using nonfinite forms in the classical period underwent some changes in Late and Vulgar Latin. Among others, the structure *causa/gratia* + gerund(ive) disappeared and was replaced by *ad/pro/propter* + gerund(ive) in the accusative/ablative; and, in some authors,[14] the gerund(ive) in the genitive temporarily gained ground over *ad* + gerund in the accusative. Likewise, the gerund appeared in the accusative, and without a preposition (17).

(17) Ps. Cypr. *mont.* 103: *a Deo accepit (legem) illis tradendam . . .*
'he received the law from God in order to give it to them'

Although more extensive research is necessary to determine the conditions in which a particular construction is selected or employed, some criteria and features that distinguish these constructions[15] from those expressed by *ut* +

11. Its use is frequently linked to the presence in the independent clause of verbs with a meaning of movement (see Michel 1995: 231).
12. Basically in poetry. In prose, the construction is more frequent beginning in the post-classical period.
13. Most of these examples are found in poetry and mainly appear with verbs with certain semantic notions.
14. See Maltby (2002: 227–229).
15. In this sense and already in the ancient grammars (see Allen and Greenough 1903: 344–345), it is usually stated, e.g., that constructions with gerund(ive) are commonly limited to brief expressions.

subjunctive can be pointed out:[16] the sequential position of the clauses;[17] the distinction of levels in which each structure can appear;[18] the possible "interlacing" of the "necessary" constituents and their lexical expression;[19] the ±factual nature of the state of affairs;[20] the semantic notion of the governing verb; the constituents that are to be focused, etc. Even when it is admitted that these expressions represent different manifestations of the same cognitive material or deep structure,[21] it has been clarified[22] that both the purpose clauses introduced by *ut* and those coded by a gerundive construction (+ *ad*, *causa*, or *gratia*) can be placed on the same level as the clause structure.[23]

Special mention should be made of structures with a pronoun or a relative adverb (*ubi*, *unde*, *quo*, etc.) in which a semantic value of purpose is also usually found. The volitive connotation attributed to this adverbial relation helped Ernout & Thomas (1953: 336) to justify the required use of the subjunctive. The independent treatment of these types of structures can be justified by their special relation with other types of subordinates and by the attention research has paid to them,[24] somewhat greater than in the case of the above-mentioned alternatives.

16. A detailed study of the range of each of these criteria is beyond the scope of this study. In the following syntactic and semantic analysis, reference is made to those that are more directly relevant.
17. The lower syntactic complexity generally implies a greater possibility of appearing before the verb: see Pinkster (1995: 215–217).
18. The question will be taken up again later (see Section 4.3).
19. See Lehmann (1988: 205–206); the phenomenon of "interlacing", from a semantic point of view, is understood by this author as the possibility that the two relations share required elements. Torrego (2001: 637) specifies that the distribution of *ad* + gerund(ive) and *ut* + subjunctive seem to be conditioned in Latin not so much by semantic reasons as by syntactic factors: among others, whether they share the same subject in the main and subordinate clauses.
20. See Bolkestein (1989a: 46).
21. See Elerick (1985: 294).
22. See Vester (1994: 273), Torrego (2001).
23. I.e., that of (satellites of) the predication; see Section 4.3.
24. For the "relatives of purpose", see, among others, Maurais (1980) or Elerick (1985).

2.3. Relative connector-clause

2.3.1. Generic relative in purpose clauses

Regarding relative structures, in traditional grammar (e.g., Ernout & Thomas 1953: 336) the sense of the volitive subjunctive has been resorted to in these constructions, which would explain why the indicative never appears in them (18).[25]

(18) Cic. *Manil.* 63: *uos unum illum ex omnibus delegistis quem bello praedonum praeponeretis*
'you chose him alone of all men to appoint to the management of the war against the pirates'

With respect to the selection conditions of these types of structures, in general, various reasons have been suggested[26] and are mentioned below. In sum, I believe that the basic factors that must be taken into consideration are: (i) relative, result, or purpose clauses do not express these contents explicitly (like the conjunctions) but rather "contextually", this term being understood in a broad sense; (ii) the use of *ut* causes the clause to modify the action as a whole, indicating the purpose with which the subject of the main verb carries out the action. In this way, the use of *ut* calls attention to the purpose in a comprehensive way, whereas the clause introduced by a relative pronoun represents a greater restriction. Thus, it is worth mentioning that a whole series of factors exist that make possible their interpretation as purpose clauses and not, for example, causal or concessive clauses. To the extent that a greater number of the proposed factors may concur, it will be specifically the notion of purpose that proves to be the most explicit. Among the factors that have been mentioned, the following may be quoted, not all with the same importance.

(i) Morphosemantic characterization of the constituents:
- In the classical period, these structures are usually limited to cases in which the verb of the independent clause expresses an idea of

25. See Sections 3.2.1 and 4.2.6.
26. See Maurais (1980), Elerick (1985), Torrego (1988).

send/choose (*mitto*, *creo*, etc.).
- The referent (expressed or implicit) of the relative pronoun is mainly singular, [+anim(ate)]. It can also be quantified and possesses the feature [−def(inite)] (e.g., *duos legatos*).

(ii) Syntax and polarity:
- The referent of the relative fulfills the syntactic role of object of the main verb, or of subject, if this verb appears in the passive voice.
- Preference for constructions in which the verb of the dependent clause is in the 3rd person.[27]
- The impossibility of expressing negation in relative clauses of purpose.

(iii) Pragmatics and textual cohesion:
- The greater ease of presenting the purpose preposed to the independent clause, so that the marked nature of this order is considerably reduced; less frequent in conjunctional structures.
- The appearance of the structures in specific levels.
- The desire to focus the co-referent of the relative form.
- The cohesive ability of the anaphoric relative in extended or interrupted development of the purpose.

(iv) Style:
- Desire to avoid a possible repetition of the conjunction *ut*, whether to express the relation of purpose[28] or other possible relations (causal, temporal, completive, etc.).

Nevertheless, some difficulties exist in formulating all of these conditions in a clear and definitive way, such as, for example, the scarcity of corpora on which to establish the fulfilment of some of the principles.[29] On the other

27. In which case, regarding the construction with *ut*, the infinitive or a supine would be preferred: see Maurais (1980: 235).
28. See, e.g., Plaut. *Amph.* 339–340: *uerum certum est confidenter hominem contra conloqui, / qui possim uideri huic fortis, a me ut apstineat manum*: 'but I'm determined boldly to address this fellow to his face, **so that** I may be able to appear valiant to him; **that** he may keep his hands off me'.
29. The research carried out by Elerick (1985: 292–293) is limited to 100 examples of the prose of Caesar, Nepos, Sallust, and Livy, whereas Maurais (1980: 233) only considers the verb *mitto*. In no case are statistical data provided that would reflect the impact of the different criteria proposed.

hand, the factors enumerated can have an influence in the choice of the relative structure only to the extent of a more or less clear tendency. In some cases, in addition, the criteria provided are not so much a sure exponent of the choice of the specific relative structure, but rather an indication of the desire to express the semantic relation in some way other than with a conjunction. Finally, there is the limited explanatory ability of the argument based on the characterizations "marked" and "unmarked".[30]

The need for more extensive research into this point is clear.

2.3.2. Quo

One special case within the relative structures is constructions using *quo*.[31] It has commonly been acknowledged[32] that when this relative is used, a comparative element is present (19). However, there do exist cases ((20a)–(20b)) in which this notion does not appear. In light of these examples, this phenomenon does not seem to be limited to the late period.[33]

(19) Cic. *epist.* 15,4,10: *comprimere eorum audaciam, quo facilius ceterorum animi frangerentur*
'to repress their audacity, that the spirits of the others might be broken more easily'

(20) a. Plaut. *Amph.* 833–834: *mi extra unum te mortalis nemo corpus corpore / contingit, quo me impudicam faceret*
'no mortal being except yourself alone has ever touched my person in contact with his so as to render me unchaste'

30. Thus, for example, with regard to the condition [+animate] of the antecedent of the relative clause, counterexamples are found such as: Cic. *Quinct.* 22: *huic ne ubi consisteret quidem contra te locum reliquisti* 'you have left him no ground even to make a stand against you'. Logically, not all of the criteria will always occur, nor are all of them equally relevant.
31. There are, nevertheless, those who do not see in this type of relative purpose clauses anything more than some relative clauses without an antecedent constructed with the morpheme of possibility (Touratier 1994: 691).
32. See, e.g., Ernout & Thomas (1953: 343).
33. As implied by Bassols (1963: 340).

b. Sall. *Catil.* 11,5: *L. Sulla exercitum, ..., quo sibi fidem faceret ..., luxuriose ... habuerat*
'L. Sulla had treated the army luxuriously, in order to make it devoted to him'

This fact leads to the reconsiderations:

(i) That purposive *quo* does not always take the comparative, even though examples are not particulary common. Therefore, conventional wisdom should be modified to say that if the presence of the comparative is relevant to the choice of the structure with *quo*, this feature does not constitute a condition *sine qua non.*[34]

(ii) That the introductory element mentioned does not share all of the contexts of final *ut*. In this sense, Torrego (1988) demonstrated that the undeniable origin and relative nature of *quo* makes it incompatible with use as a subordinating element when the relation appears on the level of an utterance, since, in this case, the characteristic thing is precisely the absence of a significant relationship between the statement and the subordinate clause. In this way, the relative does not have anything to fill it with content. Therefore, despite the evolution of *quo* toward the *status* of a conjunction, its functioning allows us to see that the loss in productivity of its grammatical features never became total, as was in the case with, for example, *ut.*

2.3.3. The relative pronoun as an introductory element for result clauses

Finally, cases exist in which some clauses introduced by a relative pronoun plus a verb in the subjunctive exhibit an idea of result (21). The lack of coherence in the determination of the characteristics that individualize these types of construction allows us to recognize certain difficulties. If Bennett (1910: 296–297) declares that this type of clause necessarily offers an intensifying element in the main clause, Hofmann & Szantyr (1965: 558) exemplify the construction with a text that exhibits not only the absence of an intensifier but

34. This would be confirmed by examples of the juxtaposition of purpose structures with *quo* and with *ut*: Sall. *Catil.* 58,3: *sed ego uos, quo pauca monerem, aduocaui simul uti causam mei consili aperirem.*

also the indicative mode in the verbal form (22). The fact is not interpretable as a *hapax*; the quote continues with the repetition of the structure (23). One type of structure with some similarities to these is that which exhibits relative pronoun + indicative/subjunctive, and which can express a certain idea of result ('some people think ... '), in which the antecedent is deliberately indefinite, and which also act as generic presentative clauses (24). Nevertheless, in the classical period, only those constructed with the subjunctive – with an indefinite referent or not – could express a notion of effect or result (25). Questions regarding the use of the verbal mode are addressed in Sections 3.2.1 and 4.2.6.

(21) Cic. *Tusc.* 3,16: *est innocentia adfectio talis animi quae noceat nemini*
'he is so innocent, he could not harm anyone'

(22) Plaut. *Trin.* 91: *sunt quos scio esse amicos*
'there are some whom I suspect to be friends'

(23) Plaut. *Trin.* 91–92: *sunt quos suspicor* (sc. *esse amicos*), */ sunt quorum ingenia atque animos nequeo noscere*[35]
'there are some who I suspect are friends, and whose dispositions and feelings I am not able to discover'

(24) Liv. 1,4,7: *sunt qui ... putent ...*
'some (writers) think that ... '

(25) Liv. 9,3,12: *ista sententia ... ea est quae neque amicos parat nec inimicos tollit ... ea est Romana gens quae uicta quiescere nesciat*
'that policy is the (very) one which neither gains friends nor removes enemies: the Roman race is such that it does not know how to rest when beaten'

In light of what has been presented thus far, it is worth asking, on the one hand, whether any of Plautus's texts really contain a notion of result. On the other hand, the following two questions arise: (i) Can one really speak

35. Pinkster (1995: 26–27) in fact, sees a different syntactic role for these constructions which are included among the arguments of the predication; however, the result clauses introduced by *ut* are adjunct satellites with a function of "Result" (see Section 4.3).

of a specific linguistic form for result and purpose clauses when they are introduced by the same conjunction? and, therefore, (ii) How can either one be detected in the discourse?

To try to respond to these questions, a formal and functional analysis of the most relevant aspects on two of the main linguistic levels is necessary. The interrelation that exists between these levels inevitably brings about the presence of mutual references in the analysis of any one of them. In this way, the division that is established – semantics, syntax – more likely serves the purpose of methodology and expository clarity.

3. The semantic level

3.1. Characterizing semantic features

This section presents semantic features – shared or different – that characterize the ideas of purpose and result, and a development that allows us to examine to what extent these features are relevant.

Generally and semantically, result clauses are defined as those whose meaning makes known the result – real or predictable – of the action or state expressed in the clause by the main verb.[36] Concerning purpose clauses, one speaks of the expression of aim or intention (Bassols 1963: 313; Ernout & Thomas 1953: 342), and also of "resultat cherché", by way of a subjunctive that is used in accordance with its own meaning of intention or will. This note of volition also appears in the definition accepted by many current scholars in general linguistics, this criterion being in turn one of the principles (and sometimes the only one) when distinguishing result clauses from purpose clauses. As has already been stated in the introduction, result and purpose are considered to express results or consequences which, in the case of purpose clauses, are desired – and not yet attained – and in result clauses are unintentional and usually factual (cf. Section 3.2.2).

36. See, among others, Bennett (1910: 296), Ernout & Thomas (1953: 343), or Bassols (1963: 317). More recently, Pinkster (1995: 150–152).

A recent recapitulation (Torrego 2001: 629–630) of the prototypical characteristics[37] of purpose clauses enumerates the features that would be associated with these clauses: (i) in the main clause, the features of [+control] – implying a human subject agent – and [+intention]; (ii) in the subordinate clause, virtuality and, as a consequence, a prospective nature. This characterization could be assumed in principle. With regard to prototypical result clauses, the most pertinent associated features would be: (i) the presence of [−control] and indifference as to the feature [±intention]; (ii) in the subordinate, the tendency toward a greater degree of factuality than in the purpose clauses, with which they share the feature of [+prospectivity] in a general way. There are, therefore, intermediate situations that allow us to ascertain a special semantic *continuum* (cf. Section 3.4) between purpose and result clauses.

On the semantic level, this first approach involves the existence of two aspects whose analysis becomes necessary: the characterizing features that seem to be pertinent and the ascertainable proximity between different semantic notions that come into play in dealing with the types of clauses being studied. These are dealt with, respectively, in Sections 3.2 and 3.3.

3.2. Analysis of the characterizing features

Among the features presented as belonging to constructions of purpose and result, one can distinguish possibility, factuality, volition, referential identity,[38] control, prospectivity, and the semantic notion of the governing verbs. Certainly, the analysis of the controversial origin of the *ut* of result and purpose provides information about semantic features, some more and some less differentiating. Nevertheless, given the greater involvement that this discussion demonstrates on the syntactic level, it is dealt with in Section 4.1.

37. One could also speak of "paradigmatic" characteristics, understanding that this occurs in structures in which the essential features of the construction, in syntactic, functional, and conceptual terms, manifests itself in a clear and nonconflictive way and, consequently, to the maximum of its possibilities.
38. This feature is addressed when speaking about the various levels in which purpose and result constructions can appear.

3.2.1. Possibility and Factuality

It has been correctly proposed that the subjunctive has a modal meaning that would have evolved from a meaning of contingency to a meaning of present time. The existence of this meaning would be confirmed by its clear presence in verbs with a character of potentiality in no small number of clauses[39] in early literary Latin (26).

(26) Ter. *Eun.* 840–842: *apud Antiphonem uterque, mater et pater, / quasi dedita opera domi erant, ut nullo modo / intro ire possem quin uiderent me*
'Antiphon's mother and father were both at home, as if on purpose, so there was no way I **could** go in without them seeing me'

On the other hand, a radical dichotomy has been presented within purpose and result subcategories: *ut* + subjunctive to indicate a possible fact, as opposed to the expression of a real fact, using *ut* + indicative (Griffe 1985).[40] Nevertheless, this complementary distribution is not respected as early as in the Latin of Plautus and Terence, where real results appear with the verb in the subjunctive. It is possible to think, therefore, that the extension of the subjunctive indicates the loss of awareness of the modal meaning on the part of the speakers, beginning in very early times, so that already in the archaic period, and then gradually, it is the mode used without any nuance of modality, a mark more of a morphosyntactic than of a semantic type.

Although a clear place has been claimed[41] for a potential meaning of result clauses, and a distinction has been described between the modes of purpose (jussive subjunctive) and result (potential subjunctive), the generalization of the potential meaning to all result clauses would have favored loss of

39. Bennett (1910: 297) provides the data that, of 106 examples, no less than 30 showed verbs which, in his opinion, reveal the origin of the construction (*possit*, *audeat*, *uelit*, etc.). See also Woodcock (1959: 99–100, 114).
40. Concerning this question, Harris (1974: 171) proposed, already in Latin, the existence of two different uses of the subjunctive: one in which it functions as a formal marker and one in which it possesses a complete meaning, in real and distinctive opposition to the indicative.
41. See Perret (1958: 115, 123), Woodcock (1959: 120–121), Touratier (1982: 327–331).

the primitive meaning of the subjunctive, converting this verbal mode into a purely morphological necessity. Thus, the proposed distinction would not always be operative between purpose and result based on the presence of two homonymous morphemes as main senses of the subjunctive – volition and possibility – which would be applied respectively to these two types of clauses.

As a consequence of the general linguistic tendency toward the reduction of the subjunctive,[42] the replacement of this verbal mode by the indicative begins to extend itself from the late period onward; some examples are found in inscriptions beginning in the middle of the 2nd century CE (27).

(27) *CIL* VIII 2728 (*EDH*): *apparuit fossuras a rigore(m)(!) errasse, adeo ut superior fossura dextram petit ad meridiem uersus, inferior similiter suam petit ad septentrionem*
'it became clear that the diggings strayed (because of the hardness of the earth) in such a way that the upper diggings veered toward the south, on the right side, and, similarly, the lower ones toward the north'

The presence of the indicative is also clear in the legal texts, *Itala*, Tertullian, the *Itinerarium Egeriae*, Cassiodorus, Gregory of Tours, and others (Hofmann & Szantyr 1965: 645). However, in some of these texts,[43] the tendency does not seem very pronounced. Väänänen (1979: 213) accepts that in Late Latin there was a strong reduction in the use of the subjunctive, especially in subordinate clauses.[44] But this is an affirmation that cannot be generalized in an absolute manner; Väänänen himself, in a later work (1987: 75–82), alludes to the coexistence of the indicative and the subjunctive – a mode

42. See Calboli (1995: 57–58) and references in his Note 1.
43. See Griffe (1996: 129), Cabrillana (1998).
44. In this regard, see also Wanner (1995: 274–277) or Calboli (1994: 32, 36), who proposes (1994: 43ff.) the hypothesis that the subjunctive is abandoned in result clauses in the late period at the same time that it is abandoned as a medium of definite identification of the noun, since the article is born and begins to extend. Väänänen (1987: 78) offers four examples of result clauses in the indicative in the *Itin. Eger.*, three of them with the verb in the main clause in the present.

that preserves its own vitality[45] – in several types of subordinate clauses, including result and purpose. Therefore, the functioning of the subjunctive would be, in a special way in result clauses, more clearly an instrument for marking grammatical senses of subordination and not semantic senses of factuality or modality.

Several explanations have been proposed for the introduction of the indicative – a mode consistent with the factual character of result clauses.[46] Among them are the influence of Greek in the translations of ὥστε + indicative, the constructions of *quod* + indicative, or a possible anacoluthon (28). The first construction of *ut* + infinitive appears in a translation in the *Vet. Lat.* and is interpreted as a Graecism, as a word-for-word translation (29).

(28) *Itin. Eger.* 7,3: *nam mihi credat uolo affectio uestra, quantum tamen peruidere potui, filios Israhel sic ambulasse ut, quantum irent dextra, tantum reuerterentur sinistra, quantum denuo in ante ibant, tantum denuo reuertebantur: et sic fecerunt ipsum iter, donec peruenirent ad mare rubrum*
'for I hope that your affection will believe me when I say that, as far as I could see, the children of Israel marched in such ways that as far as they marched to the right, they regressed to the left; as far as they advanced, they then retreated, journeying thus until they reached the Red Sea'

(29) Vet. Lat. 2 *Cor*. 2,7: ὥστε τοὐναντίον μᾶλλον . . . ὑμᾶς χαρίσασθαι ⇒ (*sufficit illi qui eiusmodi est obiurgatio haec quae fit a pluribus*) *uti e contrario magis uos donare*[47]
'this punishment, imposed by the majority, is sufficient to such a man, so that, on the contrary, you ought rather to forgive and comfort him'

In the Greek language, the development of ὥστε + infinitive is basically post-Homeric (Calboli 1995: 58, 60). Basing himself – among other reasons –

45. Especially present in concessive, comparative, indirect interrogative, purpose, and result clauses with *verba declarandi* and *affectuum.*
46. See Löfstedt (1911: 255; 1933: 431) or Hofmann & Szantyr (1965: 639), among others.
47. Vulg. 2 *Cor* 2,7: *ita ut e contra magis donetis et consolamini.*

on arguments from historical and comparative linguistics, Calboli (1995: 69) points out the use of two possibilities (indicative/infinitive) as a resource for expressing the consequent in different ways: the mere assertion of the consequent (infinitive) versus the presentation of it as foreseen by the subject of the "governing" clause (indicative). In this way, the infinitive would be used in a "modalized" way.[48] Nevertheless, the strongest tendency in the Romance languages is to use the indicative.

The observation of the use of ὥστε in Biblical and Literary Greek also leads to the assertion of an extremely diffuse borderline between its meanings of result or purpose. In this sense, Muraoka (1973: 216) points out that, since the ambiguous uses of ὥστε are attested in both Biblical and non-Biblical Greek, it does not seem absolutely necessary to look for an explanation for this very ambiguity.

On the other hand, the spoken language confuses the infinitive (*accedere*) and the imperfect subjunctive (*accederem*) (30).[49] This phenomenon leads to the introduction into writing of mere mechanical reproduction of what has been heard. The homophony (Molinelli 1998: 563–568) that exists between the imperfect *amarem* and the contracted form of the perfect *amarim* must also be taken into consideration,[50] a phenomenon that could lead to confusion.

(30) *Itin. Eger.* 22,2: *sed quoniam de Tharso tertia mansione, . . . , est martyrium sanctae Theclae, gratum fuit satis ut etiam illuc accedere* (= *accederem*)
'I had already been in Tarsus (on my way to Jerusalem), but as Saint Thecla's memorial is three stations from Tarsus, it was very pleasant for me to go there'

48. In a partially similar manner, see Clinquart and Lambert (1984) or Milani (1999).
49. See Löfstedt (1911: 250).
50. See Hofmann & Szantyr (1965: 552) or Ernout & Thomas (1953: 418). This aspect is also commented upon by Väänänen (1979: 317) with regard to an example by Gregory of Tours (*Franc.* 8,31,7), a phenomenon that does not seem to occur in a text from an earlier date such as the *Itinerarium Egeriae.*

The irregularities in the use of the mode could also be due to loss of the strict meaning of subordination.[51] Contaminations proliferate in this final stage of Latin: *ut* is constructed with the indicative because of the influence of *quod* + indicative, and at the same time *quod* is gradually converted into a universal conjunction, pulling along with it the disappearance of *ut.*

Finally, the interchange between clauses with *ut* and infinitive constructions becomes more and more frequent (31).

(31) Epiphan. *in euang.* 57, p. 152, 24: *ire desiderauit, ... ut ... doceret ... aut ... dare ueniam*[52]
'he wanted to go, so that he could teach or authorize'

In conclusion, the difficult individualization of clauses of purpose and result introduced by *ut* became an almost unmanageable task during the passage from Classical to Late Latin.

3.2.2. Control, intentionality, animacy, and prospectivity

Considering what is more and what is less paradigmatic allows us to clarify, along with Cristofaro (2003: 157–158), that the proposition expressed in a purpose clause does not necessarily involve control on the part of the subject. Nevertheless, by their very nature, in these relations it is implied that the agent (performer) of the main state of affairs is in some way involved in carrying out the dependent state of affairs, at least insofar as there exists an element of his will toward this realization. The involvement of this volition will be greater if the agent of the main state of affairs exercises control over the dependent clause, a situation that is more frequent when both subjects have the same referent. In this way, the paradigmatic relations of purpose will be those in which the same entity is involved in the two states of affairs, and this entity can control the realization of the dependent state of affairs. It would be possible, therefore, to apply a gradual instantiation of the [+control] feature (Torrego 2001: 632–635). In this way, although the degree of control would

51. In this regard, Lundström (1943: 60–63) observed that in the Latin translation of Ireneus in which the construction *ut* + infinitive frequently appears, taken from the Greek, this phenomenon never occurs in the first part of a broad grammatical element.

52. See Löfstedt (1917: 92).

diminish in intensity, its existence would permit us to continue to consider clauses such as (32) to be purpose clauses.

(32) Sen. *nat.* 1,1,6: *ideo nulla sine eiusmodi spectaculis nox est, non enim opus est ad efficienda ista magno aeris motu*
'therefore, there is no night without a sight of this kind; in fact, a great movement of air is not necessary in order to cause those fires'

The above-mentioned degree of control would be provided by the presence of an idea of inducement to a change of state, which has some points in common with virtuality, a feature which in turn is associated with purpose. This is precisely the only feature whose presence can distinguish purpose from result clauses.[53] Thus, whereas in (33a), which is quite distant from the prototypical conditions of purpose, a "simulated purpose" can be seen,[54] which is not possible in (33b), where what occurs is more of a consequence.

(33) a. Liv. 7,27,1: *exercitibus dimissis, cum et foris pax et domi concordia ordinum otium esset, ne nimis laetae res essent, pestilentia ciuitatem adorta coegit senatum imperare decemuiris ut libros Sibyllinos inspicerent*
'after the armies were disbanded, as there was peace abroad and harmony at home thanks to the understanding among the orders, to prevent things from becoming too pleasant, a pestilence attacked the citizens, and the senate found themselves under the necessity of issuing an order to the decemvirs requiring them to consult the Sibylline Books'

b. Liv. 5,33,11: *(Raetos) loca ipsa efferarunt ne quid ex antiquo praeter sonum linguae nec eum incorruptum retinerent*
'the Raetians, who had through the nature of their country become so uncivilized that they retained no trace of their original condition except their language'

53. This is understood to be so when an introductory particle does not exist in either of the two types of clauses.
54. See Pinkster (1995: 148–149).

Intentionality is seen to be one of the most relevant features when making the distinction between purpose and result. Result clauses – say Ernout & Thomas (1953: 342–343)[55] – express a result which is unintentional, independent of the will of the subject, whereas purpose clauses respond to an established intention, even if this has not been achieved at the time of its expression. Even though in some cases it is not obvious, the feature [+intention] is characteristic of purpose clauses, whereas result clauses are indifferent to this feature. Consequently, there should be examples of this last type in which there is an intention and others in which such an intention is absent. It seems clear that in (34), an intentional consequence (*occiderit Mamilium*) is the desired result of the action expressed by *ui maiore quam paulo ante magister equitum cum hostium duce proelium iniit, ut et uno ictu transfixum per latus.* At the same time, it is clear that the clause – joined by coordination –*ipse … exspirauerit* expresses an unintentional consequence. Similarly, in (35) it is evident – thanks to the lexical meaning of the different elements – that the consequence (*ridentis etiam speciem praebuerit*) could only be voluntarily sought, because what precedes it (*superante laetitia dolores*) makes that clear.[56]

(34) Liv. 2,20,8–9: *hos agmine uenientes T. Herminius legatus conspicatus, …, tanto ui maiore quam paulo ante magister equitum cum hostium duce proelium iniit, ut et uno ictu transfixum per latus occiderit Mamilium et ipse inter spoliandum corpus hostis ueruto percussus, cum uictor in castra esset relatus, inter primam curationem exspirauerit*
'when T. Herminius saw them (the cohort of exiles) coming, he attacked the enemies' commander much more fiercely than the Master of the Horse had previously done, so much so, in fact, that he killed him by a single spear-thrust through his side. While despoiling the body he himself was struck by a javelin, and after being carried back to the camp, expired while his wound was being dressed'

55. The distinction is maintained in more recent papers: see, among others, Vester (1994: 271), Crespo (1988), or Ehrenfellner (1996).
56. For the implications of these cases in the tense system, see Cabrillana (1999: 97–101).

(35) Liv. 21,2,6: *eo fuit habitu oris ut superante laetitia dolores ridentis etiam speciem praebuerit*
'the look on his face was such that, joyfully mastering his pain, he even seemed to be smiling'

In this way, although the presence of intentionality takes shape as a prototypical feature in purpose clauses, problematic and borderline examples still remain in which the perception of this feature is not always easy ((36); cf. Section 3.2.3). It is clearly difficult to decide between the senses of volition or possibility of the verb *habeat* in (37). However, the distinction in the area in which result and purpose coincide – purpose/result unachieved/unintended – would be a question of an emphasis that the reader has to make the effort to discover in the intention of the author. In other words: the lack of a distinction would be resolved into a question of interpretation,[57] assisted by the context in the best of cases (38). On the other hand, the different linguistic expressions of both constructions and the analysis of some of their formal elements allow one to see that the feature of emphasis can also be present in purpose clauses, even though it is found closely linked to result clauses.[58]

(36) Cato *agr*. 124,11: *canes interdiu clausos esse oportet, ut noctu acriores et uigilantiores sint*
'dogs should be shut in during the day so that they are fiercer and better guards at night'

(37) Cato *agr.* 8,5: *fundum urbanum, et qui eum fundum solum habebit, ita paret itaque conserat, uti quam sollertissimum habeat*
'a market garden, and more so if it is the only one that one owns, needs to be planted and cultivated for maximum productivity'

(38) Liv. 3,72,5: *quem enim hoc priuatae rei iudicem fecisse ut sibi controuersiosam adiudicaret rem?*
'for what judge has ever dealt with a private suit to thus appropriate the property in dispute to himself?'

57. See Griffe (1978: 90), Rubio (1982: 310, 315–316) and Touratier (1994: 647).
58. See Sections 4.2.1 and 4.2.2. On the origin and presence of this emphasis, see Cabrillana (1997: 568–570).

Thus, and as opposed to other adverbial constructions, result clauses do not permit formal focalization without ceasing to be grammatical or losing their own condition of being a result (39b). The reasons that prevent it are situated (i) on the level of the principle of iconic motivation, according to which the result clause cannot precede its cause; and (ii) in the very pragmatic nature of the result clause, which is already in and of itself a focalization of a cause seen from the point of view of its consequence, a focalization usually coded by the intensive particles that introduce it. On this same level, also characteristic of result clauses is the impossibility of assuming thematic roles, which complement relations and other adverbial constructions are in fact capable of adopting.

(39) Liv. 1,15,7: *tantum ualuit (Roma) ut in quadraginta deinde annos tutam pacem haberet*
   a. '(Rome) was so powerful that it enjoyed assured peace for forty years'
   b. *'it was the consequence that (Rome) enjoyed assured peace for forty years, because it was so powerful'

It is not infrequent for purpose clauses to permit focalization, which is usually accompanied by correlative structures such as *eo … ut*, *et quod … et ut*, *non solum quod … sed ut*, *magis ut*, etc. (40).

(40) Sall. *Iug.* 24,10: *sed quoniam eo natus sum ut Iugurthae scelerum ostentui essem, non iam mortem neque aerumnas*
'but since I was born for that, to be a proof of Iugurtha's villainy, I do not now beg a release from death or distress'

The presence of intentionality has been linked to the presence of a nominal constituent [+animate] in the governing clause, whose appearance would be almost required in purpose clauses and voluntary in result clauses.[59] At the same time, animacy appears linked to the control feature. As was already seen in Section 3.1, the relevance of these features could only be affirmed for

59. Thus, e.g., S. Salor (1993: 176, 182), who assigns to result clauses, for their part, the feature of [+constatation] of purpose and not of an intended search.

those cases – and not always – in which it is strictly a question of prototypical constructions. Thus, Touratier (1994: 150) affirms:

> On ne peut pas dire qu'en latin classique, une proposition finale se laisse toujours interpréter comme la volonté du premier actant du verbe principal. Car l'ensemble *ut* et le subjonctif a un sens final, même quand il ne représente pas la volonté du premier actant du verbe principal, ce verbe pouvant en effet designer une action hors de la volonté de la personne concernée. Ou bien être impersonnel. Ou encore avoir un premier actant non animé et par conséquent non suceptible de volonté.

Nevertheless, Touratier himself (1994: 648) inconclusively uses the argument of volition to explain the functioning of the sequence of tenses in result clauses.[60]

Finally, with regard to the feature of prospectivity, it must be pointed out that purpose clauses are by definition prospective and posterior to the main clause, but result clauses are not necessarily so (41).

(41) Sen. *nat.* 1,3,10: *hunc, quem toto terrarum orbe maiorem probat ratio, acies nostra sic contraxit*[61] *ut sapientes uiri pedalem esse contenderent*
'this, according to calculation bigger than the whole orb of the earth, has to be reduced by our sight in such a way that wise men even held that its diameter was one foot'

3.2.3. The semantic value of the governing verb

Another feature that has been considered is the semantic value of the verb in the governing clause. The purposive *ut* appears to depend on verbs which, because of their meaning, allow the expression of this semantic relation,[62] and

60. See Cabrillana (1999: 100–101).
61. Perfect with a habitual present sense.
62. It is relevant that the governing verb is *faciendi*, *dicendi* (pseudo-purpose), of movement or of command (completive with content of purpose); together with the presence or not of the feature [control], the verb provides a differentiation between paradigmatic purpose clauses or those in which a dissociation takes place in the relationship between the syntactic structure and the conceptual quality of the clauses in connection (see Prandi 1996:

never verbs of state. The consecutive *ut* appears to depend on verbs whose semantic content covers the notions of 'happen' and 'bring about'. Nevertheless, already in traditional manuals – such as Woodcock (1959: 103) – it is pointed out that both purpose and result clauses can depend on verbs such as *facio*, *perficio*, *efficio*, etc.

Bennett (1910: 299) understood these constructions (called substantive clauses of result) as a development of pure result clauses with an origin in expressions of the type seen in (42). A valid objection is that the "original" examples – *euenit ut* – are as ancient as the derived ones – *miserorum, ut … sint*. However, understanding matters in this way explains the current confusion, in which clauses are called "result" which are not such, although they could have been so in their origin.

(42) Ter. *Andr.* 916–917: *itane adtemperate euenit, hodie in ipsis nuptiis / ut ueniret, ant⟨e⟩hac numquam?*
'To come so opportunely today just at the very nuptials, and yet never to have come before?'

Bennett himself confesses (1910: 300), on the other hand, that on occasion it is impossible to determine with certainty whether one is dealing with substantive clauses of result or substantive clauses derived from a volitive idea. Thus, for example, perhaps both (43a) and (43b) are understandable, but the most plausible interpretation seems to be the substantive one (43c).

(43) Plaut. *Amph.* 647: *id modo si mercedis datur mi, ut meus uictor uir belli clueat*
a. 'if only I could receive the reward of hearing my husband hailed conqueror'
b. 'if only the reward of hearing my husband hailed as conqueror could be given to me'
c. 'if only this reward could be granted me, that my husband be hailed the conqueror in the war, thus I would be satisfied'

75–76). It is fundamentally a matter of objective expressions of purpose ("plants have roots to nourish themselves") and pseudo-purpose clauses (see Section 4.3).

Three considerations emerge from the facts which have been presented:

(i) There does not appear to be sufficient reason[63] to include this type of clause among those of result or purpose, since practically the only thing that facilitates the understanding of "that which occurred" as a consequence of "occur" is the lexical meaning of the governing verbs. Certainly, the traditional consideration categorizes them as a subgroup of result clauses, a posture criticized by, among others, Scherer (1975: 253). More recent papers, such as Rosén (1989: 198), consider that its designation as a result "should therefore not be upheld". In fact, depending on the type of negation that these clauses indicate, they will use *ne* or *ut non.* I understand this posture as a prudent position that does not clearly opt for the consecutive condition of the clauses mentioned. Cuzzolin (1996a), for his part, unites the greater presence of factuality to the constructions *accidit quod* (as opposed to that which occurs preferentially in *accidit ut*). However, both the previous argument and the fact that the constructions with *ut* could appear with the formal distribution of a result clause do not necessarily imply that we are dealing with variants of result expressions strictly speaking. Rather, it is a matter of structures that are situated halfway between completive and result clauses, sometimes closer to the former and other times to the latter by virtue of diverse factors (the presence of a certain type of sentence and/or evaluative/factive adverbs).

(ii) Features such as intention, factuality, and animacy as well as the lexical meaning of the governing verb do not turn out to be completely distinctive in result and purpose constructions in their typological variety.

(iii) The presence of features shared by various types of clauses suggests a nondiscrete approach to semantic relations.

63. The intended equality in the internal distribution theme–rheme–focus proposed by Eckert (2003: 65–66) does not seem to be so, either.

3.3. Some related semantic relations

3.3.1. ‘Conditionals’

Traditionally,[64] it has been accepted that some clauses introduced by *si* can have a semantic value equivalent to that of purpose (44). Some of the features[65] that bring this type of constructions closer to those that express a relationship of purpose are: the intentionality or volition present in its statement; the “virtual” (unrealized) character of the subordinate predicate; or the necessity that the dependent relationship should express a time later than that of the main predicate.

(44) Plaut. *Men.* 1048–1049: *nunc ibo intro ad hanc meretricem, quamquam suscenset mihi, / si possum exorare ut pallam reddat quam referam domum*
‘I’ll go now to this courtesan’s house, even though she is angry with me, *to see if I can get* the mantle back off her, and take it back home’

However, given that these criteria are not always fulfilled and that they are the same ones that allow differentiation between purpose and causal clauses (cf. Section 3.3.3), with which they share more features, it seems preferable to understand that this type of clause (whose purposive interpretation is on many occasions subject to contextual conditions)[66] constitutes a subgroup of causal clauses. The designation proposed for them is “pro-causal conditionals”.

Likewise, a manifestation of the proximity between the notions of purpose and condition is the existence of cases in which the clause introduced by *ut* can have, with the help of the context, a conditional interpretation. It is precisely in some of these cases that the subsequentness of the dependent event is not clearly expressed (45).

64. Gildersleeve (1883: 421) spoke of the “half-interrogative, half-final character of *si* in Latin”. Some more recent studies also deal with conditional clauses with a close semantic value to purpose clauses in Latin: Bodelot (1988), or van de Griend (1989), Núñez (1998). For these same constructions in Greek, see Crespo (1988), Crespo, Conti, and Maquieira (2003: 418), or Wakker (1994).
65. See Núñez (1998: 606) and Bodelot (1998: 93–94).
66. For Bodelot (1998: 96), the idea of purpose is, at most, implicit. The author bases her approximation on criteria of pragmatic and cognitive nature.

(45) Liv. 3,45,6: *'ferro hinc tibi submouendus sum, Appi' inquit, 'ut tacitum feras quod celari uis'*
' "you will have to remove me from here at the point of the sword, Appius," he said, "if you would stifle all comment on what you want to keep concealed" '

3.3.2. Comparative-Modal clauses

Among the meanings that result clauses can have are listed[67] those that make reference to the manner and the restriction on the process of the main verb. These nuances, or special constructions as they are called by Ernout & Thomas (1953: 345–346), could not be anything but semantic clarifications of the overall meaning of result. This result could occur with a meaning of "limiting" the scope of the main verbal action (46). These types of clauses have, nevertheless, one restriction: the action or condition that constitutes the content of the result clause is in disagreement with the content of the main clause, instead of following it naturally.[68]

(46) Sen. *epist.* 24,26: *omnia sic transeunt ut reuertantur*
'all things pass away in such a way that they return again'

According to Krylová (1997: 80), if the result is presented as a consequence of the mode, it would be a matter of a semantic relationship of "proper consequence", which is a type of semantic relation of result in the broadest sense of the term, and has been modified by the addition of the semantic feature Manner. In turn, the nature of this feature can be quantitative[69] (scope, intensity, degree; (47a)) or qualitative (type, manner in the restrictive sense, etc.; (47b)).[70] This distinction, on the other hand, is common in the grammars of very different languages. Within the Latin language itself, it is suggestive

67. See, e.g., Ernout & Thomas (1953: 345–346), Touratier (1994: 649–650).
68. What Krylová (1997: 88–89) refers to as "inference".
69. For Ehrenfellner (1996), the expression of this type of notion by result clauses constitutes a different feature (semantic-syntactic) of these clauses as opposed to purpose clauses.
70. Examples given by Krylová (1997: 82–83) show an unclear border between these features in both Greek and Latin. On occasion, it is impossible to distinguish whether the result follows from a qualitative or quantitative feature, both interpretations being equally probable: Vulg. *Ioh.* 3,16: *sic enim dilexit deus mundum ut filium unigenitum daret* 'for

that elements such as *qualiter* appear in place of the *ut* of purpose, especially in the late period (48). Apparently more debatable, at least in Latin, is the acceptance of the type called "consecutive comparison", in which I believe that the idea being clearly highlighted is the comparative (49).

(47) a. Sen. *epist.* 46,1: *tanta … dulcedine me tenuit et traxit (liber tuus) ut illum sine ulla dilatatione perlegerim*
'your book captivated and fascinated me with such a grace that I read through it without delay'
b. Sen. *epist.* 43,4: *sic uiuimus ut deprendi sit subito aspici*
'we live in such a way that to be seen unexpectedly means to be caught in the act'

(48) *Lex Alam.* 36,2: *si culpabilis est, conponat, qualiter per neglectum non euadat*
'if somebody is guilty, the action should be recorded, so that the person should not be set free by negligence'

(49) Sen. *epist.* 21,8: *et apertior ista sententia est, quam ut interpretanda sit, et disertior, quam ut adiuuanda*
'this idea is clearer than that which should be interpreted, and more eloquent than that which should be supported'

In this regard, in addition to its parallelism with ὥστε, some data could be adduced which support the close kinship between comparative and result clauses. According to Mellet (1998), both ideas express identification between the process described in the governing clause and the reference that appears in the governed. Nevertheless, despite sharing this aspect, differences exist between these two relations. Some of them make reference to (i) the type of identification that each one codes and (ii) the pragmatic status that they possess.

In consequence, whereas comparative clauses would carry out an identification "avec alterité", result clauses would execute an identification "sans

God so loved the world, that he gave his only begotten Son'. The same phenomenon is observed, e.g., in Greek (ὥστε).

alterité".[71] The first type of identification refers to the operation that relates one element with another that is recognized as different and therefore susceptible to receiving a comparative relation ("X is as high as Y"). The identification "sans alterité" is a circular operation that does not depend on an exterior referent but rather resends the idea to itself ("X is so dumb [that he does not understand anything"]), for which reason it refers to its pragmatic status, and the comparative clauses would determine a rhematic element and the result clauses would establish a thematic element.

The type of complementary distribution outlined between the two semantic relations, however, has the rank not of a selective law, but of a tendency (Mellet 1998: 537–538). On the other hand, the difficult – and on occasions nonexistent – borderline between some of these and other semantic relations can be used by an author for stylistic purposes (Krylová 1997: 96). It seems preferable, therefore, not to grant these constructions ("comparative result") their own differentiated syntactic status.

3.3.3. Causal clauses

As early as in Archaic Latin, there existed a more than close relationship between causal and purpose clauses. This relationship has on occasion been considered so close that in practice it could be identical.[72] In support of this thesis, linguistic proof of certain scope exists, such as coordination in complement function (50) or in a relation of contrast (51).[73] This is a situation with typological parallels. With regard to Greek, Crespo (1988) bases his position on the fact that purpose results from the combination of a few subordinators (ἵνα, μέ) with verb forms that always possess intentionality. However, most of the conjunctions (ὄφρα, ἕως, ὅπως, ὡς, εἰ) can introduce clauses which, depending on the context, can be interpreted as purposive or causal.

71. Mellet (1998: 537–538) invokes the distinction suggested by Culioli (1991).
72. See Torrego (1988: 318–321), Bolkestein (1991), and Eckert (2003: 69–70).
73. Additional support is found in the existence of common correlatives (*propterea*, *idcirco*, *ideo*) or the response to a causal question with a clause with clear purposive meaning.

(50) Liv. 30,3,1: *omnibus tamen, uelut eam sortitis, Africae cura erat, seu quia ibi summam rerum bellique uerti cernebant, seu ut Scipioni gratificarentur*
'they were all, however, concerned about Africa, as if the ballot has assigned it to them, either because they saw that the issue of the war and their country's fate would be decided there, or because they wished to lend a service to Scipio'

(51) Cic. *Caecin.* 101: *id feci non quod uos hanc defensionem desiderare arbitrarer, sed ut omnes intellegerent nec ademptam cuiquam ciuitatem esse neque adimi posse*
'I did so, not because I thought that you wished for a defense, but so that all men might understand that the rights of citizenship had never been taken away from anyone, nor could they be'

Nevertheless, and according to Núñez (1998: 608–610), the fact that different types of clauses share some semantic feature(s) does not seem to be sufficient reason for including all of those relations in the area of the same semantic function. Result clauses as well as causals, those of purpose and conditionals share the feature [+cause] in their possible semantic interpretation. In turn, however, other features exist in which some of these relations are opposed. This is the case, for example, with the features of prospectivity and control, which are required in purpose clauses but not in causals. In fact, these features are the same ones that helped Crespo (1988: 292, 294) to ascribe a "purpose function" to ἵνα and to μή that is linked to the volition function. In consequence, and in turn ruling out the presence of the feature of intentionality for all purpose clauses, it does not seem that the identification between cause and purpose must be made in an absolute manner, but rather in the framework of a continuum of many adverbial relations, and determining the factors that make a certain construction more similar to one semantic value or another by virtue of prototypicality. Among the determining factors, especially in the possible distinction between cause and purpose, must be included, naturally, the factor referring to the perspective from which the relationship between the two linguistically coded states of affairs is considered. Example (52) illustrates this in that way.

(52) Sen. *nat.* 2,32,2: *nos putamus, quia nubes collisae sunt, fulmina emitti; ipsi existimant nubes collidi ut fulmina emittantur*
'we think that the lightning bolts are thrown because the clouds clash; they think that the clouds clash so that the lightning bolts can be thrown'

3.4. Continuum in/between semantic relations

The consideration of cognitive and typological aspects provides some additional basis for supposing a special semantic proximity between the ideas of result and purpose. In keeping with this perspective,[74] nondiscreteness in a semantic continuum of clausal interrelations is greater if an interrelation is more primitive and central. This "centrality" or special necessity in that which concerns life is involved in this interrelation because of the high frequency of use of the coded notion.[75] In this sense, both the notions of result and purpose belong to what has been called the "hard core" of interclausal semantic relations, along with the relations of time, cause, condition, and concession.[76]

However, this last argument has some limitations. For example, it is at least dubious that the notion of purpose cannot be simpler than that of result from a cognitive point of view. Michel (1995: 231), for example, understands that purpose is a more specific notion than cause or result, insofar as this purpose is desired by the agent of the action.[77] In consequence, and if one shares the opinion that specific notions are acquired before abstract ones, purpose would precede result in the process of acquisition of circumstantial categories. Michel (1995: 232) even points out that the expression of consequence with the conjunction *ut* does not exist, for example, in Cato, from which it would follow that the notion of consequence appears late in the

74. See Kortmann (1997: 168).
75. See Eaton (1940: ix) apud Kortmann (1997: 135).
76. This is what Kortmann (1997: 156) proposes. Others (e.g., Michel 1989: 282) present a somewhat different organization: Place/Time – Purpose – Result – Cause – Condition – Opposition – Concession.
77. For the restrictions on this affirmation see Section 3.2.2.

development of Latin.[78] This affirmation, however, does not have absolute scope. Apart from the abundant examples of the Latin of archaic comedy, cases are found in Cato such as (53)–(54). Independent of that, the design of the pathways of union in semantic relations – central, in this case – carried out by Kortmann (1997: 168) is revealing. In the representation of this cognitive map, the relation of purpose, for example, is linked to condition by way of, so to speak, the relation of causality. The analysis by Núñez (1998), which is about the above-mentioned pro-causal meaning of the conjunction *si* in certain conditions, proves to be consistent with that.

(53) Cato *orig.* 39: *sus usque adeo pinguitudine crescere solet ut se ipsa stans sustinere non possit*
'the pig usually gets so fat that it cannot remain standing by itself'

(54) Cato *agr.* 151,4: *si quando non pluet ut terra sitiat*
'if at some point it will not rain, so that, as a result, the ground becomes thirsty'[79]

3.5. Recapitulation of semantic features

The facts described so far allow a tentative proposal concerning the ascription of fundamental semantic features to structures of result and purpose. The symbols "+" and "–" indicate, respectively, the preferential or significant presence or absence of a feature, not a rigid exclusion of the contrary feature. When these symbols are found in parentheses, they indicate that the feature can be present in a low percentage of occasions. The symbol "±" indicates the possible presence or absence of the feature in question with a similar degree of probability (Table 2).

78. The author finds support in diachronic facts. Hittite, which has temporal and hypothetical subordinates, lacks purpose and result subordinates. In this language, result would be expressed implicitly, by way of coordination.

79. Example from Pinkster (1995: 152).

Table 2. Semantic features in result and purpose clauses

Features	Clauses	
	Result	Purpose
1. Factivity	+ (−)	− (+)
2. Prospectivity	+ (−)	+
3. Control	− (+)	+ (−)
4. Animacy	±	+ (−)
5. Intention	− (+)	+ (−)

The distinction of the clauses under study, as can be seen, cannot be made clearly on the semantic level. It is a matter of features that are attributable to the constructions to a higher or lower degree.[80]

4. The syntactic level

In this section, we analyze various issues that are unequivocally situated on the syntactic plane or that possess implications on this level. First (Section 4.1) we address the syntactic status in which purpose and consecutive clauses can situate themselves, in order to then continue on to the examination of the behavior of different features with syntactic repercussions (Section 4.2). The final issue is to determine the syntactic function(s) of the constructions under consideration. In this regard, we will see the possibility of the appearance of the constructions on the different levels that can be distinguished in discourse (Section 4.3).

80. A broad descriptive and specific statistical study of the attribution of these features to constructions that express purpose or result will be conducted on another occasion.

4.1. Syntactic status

From studies in traditional grammar[81] to much recent individual research,[82] different scholars have considered the description and functioning of purpose structures and, above all, result structures in light of their origin. This direction is also justified here by (i) the historical focus granted to this volume and (ii) the light that it could shed on the determination of the semantic value of each of the constructions.

One approach has been based on the paratactic origin, primarily for those constructions with a correlative structure. At issue is a series of adverbs deriving from the Proto-Indo-European root *k^wo-*, *k^wi-* used in correlation with a parallel series of adverbs of place, so that constructions such as *ibi* ... *ubi*, *eo* ... *quo*, *i-nde* ... *u-nde*, *ea* ... *qua*, *i-ta* ... **u-ta* (*ut*) turn out to be frequent. This paratactic framework would evolve to a hypotactic framework in which the relation between the members of the correlation is first understood as relative. In a later stage, the relative element would end up attaining the function of a conjunction. At the same time, attention is drawn to the fact that, in the beginning, relative clauses with the notion of result or purpose are frequently preceded by particles such as *ut*, *quippe*, or *utpote* ((55); Meillet & Vendryes 1924: 647). According to these authors (1924: 659), "il n'y a pas de raison pour la séparer étymologiquement du thème relatif". However, at the same time, "elle s'emploie le plus souvent au sens final devant un verbe au subjonctif". The support comes from arguments of a textual and comparative-typological nature (1924: 652). In inscriptional Archaic Latin, *ut* (which soon converts into a simple tool for marking dependence) can be found with a role of merely reinforcing the subjunctive, similar to what occurs with the French *que*.

(55) Plaut. *Rud.* 462: *satin nequam sum, utpote qui hodie amare inceperim?*
'am I not stupid, in, today of all days, beginning to fall in love?'

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81. See, e.g., Meillet & Vendryes (1924: 638, 647–652, 658–659), Löfstedt (1933: 415), Tovar (1946: 207–209), Ernout & Thomas (1953: 332, 343–345), Bassols (1963: 317–318), or Hofmann & Szantyr (1965: 630–631).
82. Among others, Haudry (1973), Hamp (1982), Hettrich (1987), and Ehrenfellner (1996).

Three points can be deduced from the reasoning of Meillet & Vendryes: (i) At some time the function of *ut* – as an anticipator of the real relative – was reinforcement, a function that is perhaps similar to that which would later be performed by other particles: *sic*, *ita*, *adeo*, etc.; (ii) The consecutive *ut* has correlation, in common with the comparative, this being understood as the original; (iii) The construction with subjunctive is a common feature of consecutive and purposive *ut*.

Continuing to seek the origin of the construction of result in a relative element with a local sense, which evolves until it acquires modal and then resultative sense, we find the opinion of Löfstedt (1928–1933, 2: 415). This author's position is different, on the one hand, from that of Hofmann & Szantyr (1965: 631), for whom the result function is a secondary development of the *ut* interrogative-exclamative, which evolves until it is converted into a conjunction; and on the other hand from Kroll's (1925: 85), who sees it as the development of a meaning that came from adverbs plus the presence of the subjunctive.

Another position (Hamp 1982: 118) proposes a different origin of syntactic status for result and purpose clauses, beginning with the distinction favored by the type of negation employed by each of these constructions. Purpose constructions, negated in Proto-Indo-European by **me* (Gk. μή), would have a status of authentic subordination. Result clauses, negated by **ne* in Proto-Indo-European (Gk. οὐ), would be descendants of adjoining independent clauses.[83] This posture also revises the morphological origin of the elements of the correlative scheme. If *ita* was formed over the zero grade of the locative (**i-tH*), *ut*(*a*) would have to come from **ku-tH*. In accordance with these arguments, and based on the improbability of a relative origin of a connector with the sense 'so that', Hamp (1982: 119–120) proposes different origins for the *ut*s of purpose and of result. The latter would derive from the connector of RV clauses *utá* ('and').[84]

83. Hamp adds that the fact that the particle introducing the correlation of result is frequently absent in colloquial use of the language constitutes another indication that the two clauses were rather concatenated, or subordinated. In support of this opinion, see Pinkster (1995: 35 n. 5) regarding the special use of the tenses in result clauses.

84. Hamp (1982: 120) finds confirmation in the discovery, by Tovar (1975: 11), of the Celtiberian *utā* ('and', 'also'), a particle that would be shared by Indo-Iranian and later

An attempt to link the relative origin and the modal sense[85] is observed in the proposal by Leumann (1940: 230–233; 1977: 482), whose support again centers on typological arguments such as the fact that in Greek and Old Indic, where interrogative and relative have different forms (Gk. ὡς, ὅπως :: Skt. *yáthā*; Gk. πῶς :: Skt. *katham*), result and purpose clauses are introduced by forms corresponding to the relative (Gk. ὡς, ὥστε, ὅπως :: Skt. *yáthā*).[86] In turn, the distinction between purpose and result is established by the absence of correlation (Leumann 1940: 234). In this way, in the clause that follows, it would suffice to do without *ita* in order to convert the clause into one of pure purpose (56).[87]

(56) Plaut. *Pseud.* 579: *ita paraui copias … facile ut uincam*
'I have so prepared my forces … that I may easily conquer'

The existence of hypotaxis as early as Proto-Indo-European is more clearly defended above all by Jean Haudry, who points out (1973: 152) that correlative structures – of an ancient syntactic type – are situated in an intermediate stage between parataxis and hypotaxis.[88] The fact that the correlation is expressed by means of identical signifiers arranged in parallel would explain why each of the two parts of the statement is independent. Haudry's explanation of the processes of inversion and substitution in the original correlative schemes seems in need of a greater basis of support.[89]

On the other hand, Haudry (1973: 179) states categorically that the relative of union does not represent an original use, although the author recognizes that this does not explain the uncertainty about the origin of this use,

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by Latin. The thesis is taken up again by Hettrich (1987) and clarified by Ehrenfellner (1996: 306).

85. A similar line of argument is found in the most recent study by Hettrich (1987).

86. According to Leumann (1940: 233), the volition would originally be expressed by way of the mood, not by the presence of *ut*.

87. Eckert (2003: 64–65) puts forward the coincidence in the internal pragmatic distribution (Thema – Rhema – Fokus) of comparative, result, and purpose clauses as support – a little forced on occasion – of the unitary origin of these constructions. See Cabrillana (2006: 410–411).

88. In this regard, the most recent study by Fruyt (2005: 22) explains that "en latin la corrélation est une forme particulière de subordination".

89. See Viré (1989: 465–466).

and that the only sure thing that can be said is that the theme **kwo-* has never had a meaning of referring back to a previous entity.[90] The question therefore remains open.[91]

Typological arguments[92] can also provide arguments for or against the controversial relative origin of the subordinator of result and purpose *par excellence*. Thus, it seems clear that the status of the various subordinating elements is not always easy to establish. This fact comes from, or perhaps is rather a consequence of, the nondiscrete nature of these elements. Accordingly, Kortmann (1997: 59, 340) points out specifically that adverbial subordinators are located at the intersection of the two categorical continua: (i) complementizer – adverbial subordinator – relativizer/interrogative, and (ii) adposition – adverbial subordinator – adverb.

What does seem clear is that the gradual transition[93] between parataxis and hypotaxis is manifested in some languages in the fact that coordinating connectives can be functionally equivalent to adverbial subordinators. Thus, there exists the case of *-que / et* ('and')[94] in (57a)–(57b), in which a notion of result or purpose can be seen respectively.

90. On the other hand, the most recent hypothesis of Maurel (2005: 67) defends the relative nature of *ut* in all of its uses.
91. In this regard, see Hettrich (1988: 165–169), Calboli (1995–1996: 142). Mendell (1926: 152) completes his study of *ut* with a skeptical position: "it may very likely never be possible to determine accurately the exact origin of *ut*".
92. See, among others, Kortmann (1997).
93. See Foley and Van Valin (1984), and Van Valin and LaPolla (1997), who identify the continuum coordination – cosubordination – subordination. See also Lehmann (1988: 185), Cristofaro (2003: 18–20, 22–25).
94. E.g. "He heard an explosion *and* phoned the police" (Kortmann 1997: 62 [emphasis added]). It would be a case of cosubordination or, in Lehmann's terminology (1988: 185), "clause chaining". Another example would be the relative "that", which can evolve and become a complementizer.

(57) a. Plaut. *Asin.* 421–423: *quoi numquam unam rem me licet semel praecipere furi / quin centiens eadem imperem atque oggänniam, itaque iam hercle / clamore ac stomacho non queo labori suppeditare*
'this fellow, a thief to whom I can never once enjoin a single thing, but that I must command the same things a hundred times, and din them in his ears; *and* so, now, by Hercules, what with bawling and passion, I cannot endure the labor'

b. Plaut. *Amph.* 1128–1129: *ego Teresiam coniectorem aduocabo et consulam / quid faciundum censeat*
'I will apply to Tiresias the soothsayer, *and* consult him as to what he thinks ought to be done'

If it is a question of specifying the main stages in the above-mentioned syntactic continuum, the typological approach can be useful. Thus, for Ancient Greek, a scale has been proposed (de la Villa 2000: 127) which crosses some of the syntactic types that can code different stages of union of clauses (vertical axis) with the features that characterize clausal dependence (horizontal axis). In a general way, this scale can be adopted in Latin (Table 3). According to this scale, result and purpose clauses can be situated between degrees 4 and 5, depending on their degree of prototypicality.

Table 3. Degrees of clausal syntactic relations and features of dependency

	a	b	c	d
1. Juxtaposition	–	–	–	–
2. With (non)subordinating conj. (*enim*, *nam*, etc.)	+	±	–	–
3. Extra-predicational subordination	+	+	–	–
4. Correlation	+	+	±	–
5. Noncomplement subordination	+	+	+	–
6. Complement subordination and restrictive attrib.	+	+	+	+

a. Marks of morphological dependence exist
b. Clause requires the presence of another, which acts as its main clause
c. Clause carries out a function in another
d. Clause is a necessary complement to the main clause

4.2. Analysis of (formal) features with syntactic implications

4.2.1. Correlation

The presence of introductory elements of correlation has been one of the most frequently mentioned features in the distinction between result and purpose clauses. Nevertheless, although they are more frequent in result structures, they do appear in purpose structures with a certain frequency beginning in the archaic period (58)–(59). On the other hand, result clauses do not always show correlative particles (60)–(61).

(58) Ter. *Eun.* 1005: *nunc id prodeo, ut conueniam Parmenonem*
'now I'm going forward to meet Parmeno'

(59) Cic. *Phil.* 10,10: *Plancus et ceteri pares: qui id pugnant. id agunt ut contra rempublicam restitui esse uideantur*
'and Plancus, and others like him, who strive with all their hearts, appear to have been restored against the will of the republic'

(60) Ter. *Haut.* 945–946: *ut eius animum, … / redigam, ut quo se uortat nesciat*
'(I do so) to bring him down so that he does not know which way to turn himself'

(61) Liv. 3,44,1: *sequitur aliud in urbe nefas, …* ***ut*** *non finis solum idem decemuiris qui regibus sed causa etiam eadem imperii amittendi esset*
'this was followed by a second atrocity, so that not only was the end of the decemvirs the same as that of the kings, but it was also the same cause of their losing their power'

Hofmann & Szantyr (1965: 633) speak of the "frequent omission" of the correlative in the main clause in result constructions, although they do not provide statistical data. According to the analysis of 96 result clauses from different periods and authors (see Table 1), this situation occurs in 7.29 % of occasions. In addition, the presence of correlatives in result clauses is a tendency that increases especially in late Christian authors (Herman 1963:

100).[95] A difference could certainly be adduced between the presence of correlatives with result clauses and those with purpose clauses; with purpose clauses the correlative involves a focalization, whereas in the result clauses this focalization is inherent. It is a differentiation that has been diluted over time, and in which the constructions of purpose and result possess elements of distinction that are more or less clear.

In any case, this fact has typological support,[96] as described by Cuzzolin (1996b: 119–120), who clarifies that only introductory or cataphoric elements can be missing in the case of the structures of result, which he calls (1996b: 108–109) "exophoric". The prototypical features of this type of clause are: (i) the consequence is a result of an external process and not of a feature ±static;[97] (ii) the cause that produces it is efficient and not formal; (iii) the logical relationship between the main clause and the result clause is one of necessity and not of sufficiency; (iv) the temporal relationship is one of subsequence (62).[98] At any rate, it is not unusual to find – especially in the late period – examples of this type which do not respond to the prototypical characterization made by Cuzzolin of exophoric result clauses. In (63) there does not seem to be, for example, a perceivable logical relationship of necessity between the main and result clause.

(62) Sen. *dial.* 4,7,2: *nusquam oculi eius flectentur ut non quod indignentur inueniant*[99]
'nowhere will he turn his eyes that he does not find something to move them to indignation'

95. See Section 2.1.
96. See, for Spanish, Álvarez (1999: 3793–3794).
97. In this assumption, the "endophoric" result clause would be found to be less prototypical than the exophoric. The application of prototypicality involves the existence of a continuum between exophoric and endophoric result clauses (Cuzzolin 1996b: 112).
98. In Italian, as in other languages, result clauses prove to be sensitive to the time and aspect of the main verb and to its semantics. Thus, if the predicate of the main clause is, by its nature, telic, the result clause will be equally exophoric, regardless of the tense in which it appears (Cuzzolin 1996b: 137).
99. This example is from Cuzzolin (1996b: 120), who translates it as: 'i suoi occhi non si volgano da nessuna parte, cosicché non trovino di che indignarsi'.

(63) Vulg. *Colos.* 4,6: *sermo uester semper in gratia sale sit conditus ut sciatis quomodo oporteat uos unicuique respondere*
'let your speech always be with grace, seasoned with salt, so that you may know how you ought to answer each one'

4.2.2. First element of the correlation

In Cabrillana (1997: 558), a diachronic distribution is shown for the different linguistic items that introduce the correlation in purpose and result clauses – reproduced in Table 4 – created from the data provided by Hofmann & Szantyr (1965: 640–641) and Löfstedt (1928–1933, 1: 263).[100] There it is also clarified that the examples with which Hofmann & Szantyr (1965: 640) try to illustrate the correlations *hoc … ut* and *id … ut* in result clauses in the spoken language are nothing other than cases of the so-called explanatory *ut*.

Table 4. First element of correlation in result and purpose clauses

	Result	Purpose
Archaic Latin	*ita*	*ita*
	sic	
	adeo	*id*
	usque adeo	
Classical Latin	Continue:	Continues:
	ita, *sic*, *adeo*, *usque adeo*	*id*
	New forms:	New forms:
	usque eo, *in eo*, *ab eo*, *cum eo*, *tam* (only adjectives)	*idcirco* (*ne*), *quo*, *ideo*
Post-Classical and Late Latin	New forms:	New forms:
	in tantum, *pro eo*	*ad hoc*, *in hoc*
	Accumulations: *tam*, …	
	Rare cases: *huc usque*, *illo usque*	
Spoken language	*hoc … ut*, *id … ut*	

100. To these data must be added the introductory elements pointed out by Ernout & Thomas (1953: 343) for purpose clauses: *eo*, *ob eam rem/causam*, *eo consilio*, *ea causa*. In turn, the presence of these introductory elements, plus the conjunction *ut,* would not distinguish them grammatically from the explicative completive developed by the correlative.

The most striking thing about this distribution is that, based on the assumption – held by the majority in the case of result clauses – that the first element of the correlation is lexically explicit, purpose and result clauses exhibit different elements in every case, with the exception of the construction *ita ... ut* in the archaic period. This fact, therefore, becomes a differentiating feature between the two constructions in most of the cases.

On the other hand, *ita* – more frequent that *sic* starting in the classical period[101] – gradually displaced *sic* starting in the Imperial period. This fact could be related to the more neutral quality of *ita*. According to Mellet (1998: 533), *ita* simply indicates the conditions for the realization of the process suggested by the governing clause, as well as the consequences of this realization, whereas *sic* would highlight the special way in which the process is realized.[102]

With regard to the formulas *hoc ... ut* or *id ... ut*, Löfstedt (1928–1933, 1: 262–263) adduces a series of examples in which it can be seen that these correlations expanded in the late period especially to clauses with a causal sense, a notion that the typological perspective has indicated as close to the notions of result and purpose, so that in both Classical Latin (*ut*) and Greek (ὥς),[103] as well as in many of the European languages,[104] the same adverbial subordinator (henceforth AS) can mark the relations of purpose and cause (64)–(65).[105]

101. In the work of Cicero, *ita* appears three times as often as *sic* (see Mellet 1998: 533).
102. Nevertheless, the proposal has exceptions. A broader investigation of this point is necessary.
103. See de la Villa (2000: 156).
104. Galán (1999: 3599) affirms that the area of causality covers five different semantic relations: causal (in its pure form), purpose, conditional, concessive, and result. At the same time, he highlights the special proximity of purpose and result clauses, since both would be found in the effect of an action. See also Kortmann (1997: 198–199).
105. This is a use, on the other hand, already announced in Seneca: (*con.* 10,3,10): *an non hoc puella perierit, quod pater illi tam dure responderit?*: ‘can it really be that a girl could die because her father punishes her so severely?’. See Löfstedt (1928: 263).

(64) Tert. *adv. Marc.* 4,21,2: *ex quibus quicumque fuisset, non utique hoc esset suscitatus, ut alium deum post resurrectionem praedicaret*
'whosoever of all these He might have been, He certainly was not raised up for the purpose of announcing another god after his resurrection'

(65) Mart. Brac. *ira* 5: *est etiam aliquis, qui hoc occulte loquitur et maligne, ut amicitias dirimat cohaerentes, aut ut certe*
'there is someone who speaks so secretly and maliciously that he breaks up close friendships'

Another possible reason for the lesser semantic restriction of *ut* could be the accumulation of different uses of the conjunction, some dependent on others, which Hofmann and Szantyr (1965: 646–647) attribute to the language of common people, and frequently in both the archaic period and in late texts. It is only avoided in Classical Latin (66).

(66) S.C. *de phil. et rhet.* (Suet. *rhet.* 25): *quod uerba facta sunt de philosophis et ⟨de⟩ rhetoribus, de ea re ita censuerunt, ut N. Pomponius praetor animaduerteret curaretque, ut si ei e republica fideque sua uideretur, uti Romae ne essent*
'as the result of a discussion about philosophers and rhetoricians, the Senate decreed *that* N. Pomponius, the praetor, should take heed and provide, *in whatever way* seemed in accord with the interests of the State and his oath of office, *that* they not be allowed to live in Rome'

In a detailed description of the function of the first element of the correlation, it is also necessary to distinguish whether the intensification carried out by this first element in the result structure is of the entire main clause or a specific constituent.[106] These particularities cannot, logically, occur in purpose clauses if there is no explicit correlation in them, which is the most frequent situation.

106. See Cabrillana (2006: 416–418).

4.2.3. Introductory element

As seen above (Section 2.1), the conjunction *ut* is a common element in both of the clausal relations under consideration. This phenomenon is not exclusive to these relations, nor to the Latin language.

Thus, there exist constructions introduced by *ut* which are susceptible to an ambiguous interpretation. The presence of the negation *ut non* – which is in principle "proper" to result clauses compared to the *ne* of purpose clauses – in completive and result clauses may have contributed to the mixture of the two notions.

For completive, purpose, and result clauses, the common feature of "purpose toward which" has been presented.[107] Some classifications (Lavency 1985: 242–243), in fact, speak of *ut* of purpose, completive purpose, result, result completive, etc. The position of Touratier (1994: 644) tends to situate completive and result clauses in functional areas that are very close to each other, turning to arguments of a more syntactic type. The discontinuous signifier "/*ut* ... Subj/" would have the same grammatical meaning in both cases, which would be to indicate syntactic subordination.

In reality, constructions with *ut* depending on impersonals that express notions close to those of "happen" and the innumerable constructions assimilated to the type *est ut* see a broad development over the course of the history of Latin.[108] A clear indication of the completive character is the alternation in constructions with the infinitive as early as Archaic Latin. The same can be said of constructions called *ut*-explicative, explanatory of the main clause or of a pronoun that constitutes part of it (67)–(68).

(67) Cic. *Att.* 11,22,2: *etiam illud mea magni interest te ut uideam*
'it is of great importance to me that I should see you'

(68) Plaut. *Merc.* 240–241: *mi illud uideri mirum, ut una illaec capra / uxoris simiai dotem ambederit*
'this seemed extremely surprising to me, that this very she-goat could possibly have eaten the dowry away'

107. See, e.g., the proposals of S. Salor (1993: 176).
108. See Hofmann & Szantyr (1965: 645).

There is no completely convincing reason for considering these clauses to be result clauses.[109] They fulfill the function of a noun and alternate with infinitives. Another reason for coming to this conclusion is their behavior with regard to the use of the tenses of the subjunctive (see Section 4.2.6).

Along the same lines as these facts about functional proximity, the typological study by Kortmann (1997: 134) points out that result and purpose are notions that in reality appear grouped together in the inventory of adverbial subordinators of greater antiquity in the English language by virtue of their common origin: (*swa*): (*swa*) *þæt*(*te*) > (*so*, *such*) *that.* In this way, in languages such as this, the same AS (*so* [*that*]) can introduce both semantic notions. Quirk et al. (1985: 1070) state it this way, as do the lexical inventories of the English language.

This fact is confirmed in many European languages; it is also consistent with the principles that establish the Inverse Relation Hypothesis formulated by Zipf (1949: 66–123, 127–128) and taken up and clearly stated by Croft (1990: 64–94, 156–164). The hypothesis establishes a correlation between morphological complexity, semantic versatility, the age of lexical items, and their frequency of use. According to this hypothesis, there exists a correlation between the form and meaning of the adverbial subordinators, so that the subordinators which are morphologically less complex (e.g. *ut*,[110] *cum*, *dum*) present a much lower degree of semantically polyfunctional items, whereas the more complex (the polymorphemic subordinators [e.g. ὡς, ὅτε] or those of more than one word) would be practically limited to the expression of a single semantic notion. In other words, the lower the morphological complexity, the greater the polyfunctionality or the possibility of expression of several notions. Consequently, the morphological type of the adverbial subordinators (mono- or polymorphemic) would determine the semantic functionality.

109. Potůček (2000) comes to the same conclusion.

110. See Mellet (1998). With regard to the polysemy of Latin *ut*, Michel (1995: 234) suggests that the "plasticity" revealed in this conjunction is due to the fact that the primitive link between *ut* and *ita* (ascertainable in the appearance of the archaic adverb *aliuta* only once [see Fest., 5,15/v. *aliuta*, 6M]) is not seen in Classical Latin. This perception would allow *ut* to be available for expressing different circumstances whose notions would end up being contradictory. What has been said to this point is the opinion of Michel. Among other objections one could list the scarce documentary support at hand.

Nevertheless, a different tendency is observed if Classical Latin and Classical Greek are compared – which have more than half (53 %) of their adverbial subordinators with semantic polyfunctionality – to most European languages, in which semantic monofunctionality predominates (66 %).[111]

A separate question is the possibility of the lexical absence of the conjunction itself in some cases, which at times has been classified as examples of paratactic result clauses ((69a)–(69b)) and purpose clauses ((69c)–(69d)) which can exhibit non-unitary structure. The nature of this type of clause has been linked[112] to the formal and syntactic origin of result clauses. In sum, the texts do not refer exclusively to an early period of Latin.

(69) a. Plaut. *Poen.* 323: *ita sunt turpes, credo ecastor Venerem ipsam e fano fugent*
'so ugly are they, by Castor, that I do believe they would drive Venus herself away from the temple'

b. Cato *agr.* 157,14: *et siquis ulcus taetrum uel recens habebit, hanc brassicam erraticam aqua spargito, opponito; sanum facies. Et si fistula erit, turundam intro trudito. Si turundam non recipiet, diluito, indito in uesicam, eo calamum alligato, ita premito, in fistulam introeat*
'if there is a suppurating or fresh sore, sprinkle this ground wild cabbage with water and apply: you will cure it. In the case of a fistula, squeeze *so that* it is inserted as a pack. If the pack will not stay in, dilute the ground cabbage, put in a bladder, attach a reed, squeeze *so that* it is inserted into the fistula'

111. See Kortmann (1997: 129). I believe that the typological perspective, considered in an isolated fashion, does not take into account other criteria that could prove relevant when determining the variety of semantic notions expressible by a subordinating element. In other words, there is a tendency to excessively simplify the factors that determine the complex network of interclausal semantic relations and their coding.

112. See Tovar (1946: 208–209) and, more recently, Heberlein (2001: 47).

c. Ter. *Phorm.* 179–180: *nullus es, Geta, nisi iam aliquod tibi consilium celere reperis, / ita nunc inparatum subito tanta te inpendent mala*
'Geta, you are undone, unless you instantly find out some expedient; so suddenly do such mighty evils now threaten me thus unprepared, which I do not know how to shun'

d. Catull. 66,15–18: *atque parentum / frustrantur falsis gaudia lacrimulis, / ubertim thalami quas intra limina fundunt. / Non, ita me diui, uera gemunt, iuerint*
'and are the parents' joys turned aside by feigned tears, which they shed copiously within the threshold of the bedchamber. The gods sigh over these questions so that they would not please me'

It is not out of place to consider style and discourse as an additional reason for the use of this type of construction. The paratactic expression of consequence helps the author in some cases to accelerate the narration or description of events. Naturally, the will to provide a change of construction and/or avoid a repetition of the subordinator *ut* could also be present (Desznajder 1987: 296, 300–301). In fact, the repetition of syntactic structures of the same type is not possible in many languages without running into difficulties in comprehension and stylistic peculiarities.[113]

In an overall description of the functioning of the AS, it is necessary to consider (i) the position of the clause that contains it with respect to that which codes the main event, and (ii) its location within the clause that expresses the dependent event.

(i) The traditional description and later structuralist postures[114] have asserted that the structure of the discourse constitutes a differentiating element between purpose and result clauses. The purpose clause can precede the main clause, but the result clause never can. However, since the initial position of the purpose clause is simply potential, this criterion is not decisive. In the best

113. Even assuming this, Cuzzolin (1996b: 129–130), studying Italian, shows that a restriction exists. In a sequence of result clauses, only the first can be of an endophoric type. The rest must be exophoric.
114. See, among others, Rubio (1982: 313–314).

of cases, it is a "negative distinction", since in initial position the possibility that it could be a result construction is excluded.

Even taking into consideration the limitations of this criterion, the argumentation offered from a functional-cognitive point of view is significant. It was already put forward by, among others, Haudry (1973: 161).[115] In this way, if subordination is understood – Cristofaro (2003: 2) – as a procedure for coding cognitive relations between two events, it is logical that the result clause, considered as a result of the main action, is placed after it. It is a reflection of the attempt to harmonize the logical and grammatical orders, a harmonization that contributes to configuring the direction of processing of the information.

Nevertheless, this circumstance would also tend to operate in the case of the prototypical purpose clauses, and therefore cannot become a universal differentiating criterion.

On the other hand, and with regard to the communicative function of the dependent clause in discourse, research in some languages[116] suggests, for the purpose clauses, that initial position implies a thematic function that is developed through its role as a linking element in the communicative chain.[117] The reversed position in turn helps to indicate a locally relevant purpose with regard to a type of semantic unity in the independent clause that precedes it (Chafe 1984).

At least in the case of Latin, the question requires a broader investigation in which the level of integration of the clause is taken into account. Thus, for

115. Especially clear in the case of result clauses with a prospective future. With regard to the iconic motivation or correspondence between structure and linguistic meaning, see Haiman (1985: 11). Along the same lines, see Cuzzolin (1996b: 127); for this author, the decisive reason result clauses do not appear in initial position is more a matter of the impossibility of separating the correlative construction that joins the two clauses and which constitutes the mechanism through which a semantic relation of result is expressed.

116. In general, a relationship between the clause that expresses secondary information and its expression as a dependent relationship is accepted, and vice versa: see Bolkestein (1987: 166). As the author points out, this view is not without problems: among others, (i) the difficulty of a clear division between the informative functions which are being resorted to; (ii) the absence of statistical evidence. In fact, languages exist in which there is no incompatibility between the expression of focal information and its coding as a dependent relation (Bolkestein 1987: 168).

117. See Thompson (1985), Panhuis (1984).

example, irrespective of the purpose clauses which do not express the real purpose of the event described by the independent clause,[118] cases of initial position exist in which the pragmatic function of the clause is not always easy to assign. Thus, in (70), the position of the purpose clause seems more to obey stylistic factors, such as the desire to avoid a repetition of the conjunction in clauses that are too close, with a different semantic sense. At any rate, there are cases with similar pragmatic characteristics, in which the purpose clause can appear not only at the very beginning of the sequence, but also breaking it up (71)–(72).

(70) Caes. *civ.* 1,80,1: *tali dum pugnatur modo, lente atque paulatim proceditur crebroque ut sint auxilio suis subsistunt; ut tum accidit*
'while skirmishes were fought in this manner, they advanced but slowly and gradually, and halting frequently to help their rear, as then happened'

(71) Liv. 3,30,7: *tribunicia comitia, ne id quoque post bellum ut cetera uanum esset, extemplo habita*
'this agreement might not, like all the others, prove illusory, when once the war was over, the elections for tribunes were held immediately'

(72) Liv. 3,49,6: *Sp. Oppius, ut auxilio collegae esset, in forum ex altera parte inrumpit*
'Sp. Oppius, to support his colleague, burst into the Forum from the other side'

Furthermore, in cases like these it is very probable that the initial position entails focalization of the purpose clause. Thus, the subject of the main clause refers to a previous topic of discourse: in (71) the need to elect a greater number of tribunes of the *tribuni plebis* in order to avoid the plebs continuing to be unprotected. The temporal chain of events is thus linked together by an element that is already known in part, to which information is added in the second part of the main clause, information that is of less relevance than that contained by the purpose clause itself. In the same way, in (72) the fact that

118. See Section 4.3.

the ally of Spurius Oppius (the already known Apius) needs help is something easily observable in the previous context. What is really new, rather, is that what Oppius does is burst in on exactly the opposite side of an already known forum.

(ii) With regard to the position of the subordinating element itself, the general typological data show relative scope, in light of the following universal: VO language ⇒ conjunction + clause // OV language ⇒ clause + conjunction. However, counting in favor is the fact that most of the European languages show preference for the initial position for the adverbial subordinator, and even use this position exclusively. Not many studies have considered this question applied to Latin. Ambrosini (1992) notes that the non-initial position of the subordinating element in general is a constant phenomenon in Latin literature. In some authors – and especially in certain poetic genres – this procedure becomes regular usage (Ambrosini 1992: 193). In other words, elements of the subordinate clause itself (purpose or result) can appear before the conjunction that introduces it, and in such cases this element "in conjunctional anastrophe" is or can be focused.

In the two types of clauses that we are concerned with, the subordinating element can be in enclitic position (73)–(74).

(73) Plaut. *Amph.* 487–490: *pater curauit uno ut fetu fieret, / uno ut labore absoluat aerumnas duas. / et ne in suspicione ponatur stupri / et clandestina ut celetur consuetio*
'my father will take care that it shall happen in one birth, so that in one travail she may complete her double pangs, (and not be laid under suspicion of unchastity, and that the clandestine connection may remain concealed)'

(74) Plaut. *Aul.* 591: *sin dormitet ita dormitet, seruom sese ut cogitet*
'but if he sleeps, let him sleep such that he does not forget that he is a servant'

4.2.4. Nominalization

Depending on the loss of features proper to independent clauses in the different types of subordinates, it is possible to establish a scale of nominalization, showing that the process of subordination goes more or less together with

nominalization. Typologically, the features involved in this scale, according to Lehmann (1988: 200), range from the loss of illocutionary force, typical verbal categories (time, mode, aspect) and conjugation, to verbal nominal government or limitations on objects.

In the case of Ancient Greek (de la Villa 2000: 129), subordinate clauses with a personal verb can show some features that involve a loss of clausal character on a progressive scale: (i) illocutionary force; (ii) absence of illocutionary force but presence of modality; (iii) absence of modality and presence of limited modal and temporal content; (iv) absence of person and number and special government of the subject.

For Latin, the constructions studied here generally stand between groups (ii) and (iii), although it is worth adding a clarification: whereas prototypical purpose clauses can generally be replaced by a constituent of a nonverbal nature, in result clauses this is not possible.[119] In addition to the difficulty involved in the conceptual structure of the construction, the basic reason would reside in its special syntactic structure, in which the correlative dyptich prevents the phenomenon of nominalization.[120]

4.2.5. Polarity

A datum that seems to be decisive in the distinction between result and purpose is provided by the negative transformation of these constructions. In Classical Latin, the following distribution is observed: *ut non* (and *quin* = *qui* + *ne*)[121] for negation of result clauses; *ne* for negation of purpose clauses.[122]

119. See in Section 2.2 the example from Cic. *Tusc.* 4,37, considered by the *ThLL* to be a grammatical hapax: *is est beatus, cui nihil humanarum rerum… intolerabile ad dimittendum animum … uideri potest*: 'he is happy, who cannot consider any of the things that regard mankind as unbearable so as to make him lose heart'.

120. See Cuzzolin (1996b: 130–131) in relation to Italian.

121. *Quin* is a less frequent marker of negation that requires more restrictions than the usual *ut non*, namely the appearance of *tam* in the main clause: Sall. *Iug.* 63,7: *nouus nemo erat tam clarus atque neque tam egregiis factis erat, quin is indignus illo honore et quasi pollutus haberetur*. More examples in Acc. *trag.* 338; Quint. *inst.* 7,1,46, etc.

122. A distribution confirmed by Mellet (1992), who bases the opposition between these two negations on the notion of alterity: whereas *ne* maintains the alterity, *non* eliminates it. Previously, Woodcock (1959: 101) had made note of the possibility that *ut non* (*ut nihil*, etc.) could negate words – not the entire clause – in purpose clauses, or that this negation

Nevertheless, traces of vacillation appear at low frequency, even in Ciceronian prose:[123] constructions with *ut ne* in result (75) and purpose (76) expressions.[124] Comparison with the archaic period provides an explanation.[125] The following negative conjunctions alternate: *ut non / ne / ut*, *ne / ut*, *neque* ((77)–(78)). In inscriptions and literary writings beginning with Columella, in Tacitus, and more frequently in later writers, *ne* is used more regularly than *ut non* for the negation of result clauses (79). For their part, result clauses appear in Late Latin negated with *ut non / ne* ((80)–(81)). The facts reflected here show that the distinction between purpose and result clauses based on the expression of polarity is operative but not in a universal way, and to a lesser extent even in the late period.

(75) Cic. *ad Brut.* 1,10,5: *sed ita multi labefactant ut ne moueatur interdum extimescam*
'but so many are trying to shake his loyalty that at times I am mortally afraid of his giving way'

(76) Cic. *Sest.* 53: *lex erat lata uastato ac relicto foro et sicariis seruisque tradito, et ea lex quae ut ne ferretur senatus fuerat ueste mutata*
'a law was passed after the forum had been desolated and abandoned, and given over to assassins and to slaves; a law so as to prevent the passing of which the senate had changed its dress and gone into mourning'

(77) Plaut. *Asin.* 25–26: *ita me opstinate adgressu's ut non audeam / profecto percontanti quin promam omnia*
'so determinedly have you accosted me, that I really do not dare otherwise than to disclose everything to you making all these enquiries'

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could communicate special emphasis. See also Bassols (1963: 315).

123. See Merguet (1962); Hamp (1982: 118) affirms the existence of the vacillation from Columella onwards. Likewise, *ut ne* appears especially in constructions of a completive type.

124. In the opinion of Touratier (1994: 647), *ne* appears when the result is implicitly or explicitly(?) sought. He also notes the possibility that the result clauses can be negated by *quin* (1994: 647). With regard to the type of negation used and its connotations, see Calboli (1995–1996: 145–147).

125. Likewise, another influence is the fact that in dependence of verbs such as *facio*, *efficio*, etc., the negation *ne* is also found. Concerning this, see Cabrillana (1997: 560).

(78) Ter. *Phorm.* 768: *ita fugias ne praeter casam*
'so run away as not to run beyond the house'

(79) Lact. *inst.* 5,13,2: *illi malitia et furore caecantur, ne uideant* …
'they are so blinded by their malevolence and madness that they do not perceive …'

(80) a. Vet. Lat. *Matth.* 6,18: *et faciem tuam laua ut non uidearis hominibus ieiunans*
b. Vulg. *Matth.* 6,18: *et faciem tuam laua ne uidearis hominibus ieiunans*
'and wash your face, so that you are not seen by men to be fasting'
c. Aug. *conf.* 5,2,2: *sed fugerunt ut non uiderent te uidentem se*
'but they fled so as not to see that you saw them'

(81) a. Vulg. *Matth.* 26,41: *uigilate et orate, ut non intretis in tentationem*
b. Vulg. *Marc.* 14,38: *uigilate et orate, ut non intretis in tentationem*
'watch and pray that you may not undergo the test'
c. Vulg. *Luc.* 22,40: *orate, ne intretis in tentationem*
'pray that you may not undergo the test'
d. Vulg. *Luc.* 22,46: *surgite; orate, ne intretis in tentationem*[126]
'get up and pray that you may not undergo the test'

4.2.6. Verb tense

The functioning of some verbal categories seems different in principle in the two constructions being studied. Purpose clauses are constructed with the present[127] and when they depend on a past tense with the imperfect subjunc-

126. There are two further examples of purpose clauses negated with *ut non* in the Gospels (*Matth.* 24,20: *orate autem, ut non fiat fuga uestra hieme uel sabbato* and *Marc.* 13,18: *orate uero, ut hieme non fiat*), and two with *ne*. With regard to (81), it might be supposed that the differences come from the Greek text; but it reads ἵνα μή in (81a, b, and d), but μή in (81c).

127. The implications of the verbal mode for linking the category of tense to the features of possibility and factuality are given in Section 3.2.1.

tive.[128] Result clauses, on the other hand, do not follow the usual *consecutio temporum*.[129] More specifically, the anomalies can be reduced to the use of the present subjunctive and present perfect subjunctive, both depending on the past tense.

With regard to the use of the perfect subjunctive, the proposals have basically turned to the following: failing to obey sequence of tenses, absence of chronological approximation between main and subordinate clause, and interruption of narrative discourse (Ronconi 1959: 176–179). These explanations are not completely convincing. Thus there is no absence of chronological approximation nor interruption of discourse in cases such as (82).

(82) Liv. 1,16,1: *tempestas … tam denso regem operuit nimbo ut conspectum eius contioni abstulerit*[130]
'a thunderstorm enveloped the king in so dense a cloud that he was quite invisible to the assembly'

As for alternation between the perfect subjunctive and imperfect subjunctive, on the one hand (Ronconi 1959: 178–180), an aspectual distinction has been proposed (perfect: punctual / imperfect: durative); on the other (Woodcock 1959: 122), a modal differentiation (perfect: real action [indicative] / imperfect: mental connection [subjunctive]) is presented. Third, a difference in the type of discourse has been alluded to (perfect [not temporally marked]: *discours*[131] / imperfect [temporally marked]: simple discourse). However, this use was significantly weakened already in the post-classical period, in which the perfect hardly ever appears for stylistic contrast.[132] For their part, the first two arguments have little scope. In fact, counterexamples can be found, such as (83) and (84) respectively.

128. The formulas *-urus sim / essem* are used occasionally; see, e.g., Kühner & Stegmann (1914: 175), Ernout & Thomas (1953: 394–395, 408).
129. Statistical details can be found in Griffe (1978), later clarified in Cabrillana (1999: 93–96, 104).
130. Similarly Liv. 24,16,1; 25,2,7, etc.
131. In Benveniste's sense; see Griffe (1978: 96–97).
132. As recognized by Griffe (1978: 96–97) himself.

(83) Liv. 25,6,11–12: *tamen tantum afuit ab eo ut ulla ignominia iis exercitibus quaereretur ut et urbs Roma per eum exercitum qui ab Allia Veios transfugerat reciperaretur, et Caudinae legiones quae sine armis redierant Romam, armatae remissae in Samnium eundem illum hostem sub iugum miserint*
'but so far were those armies from having any humiliation inflicted upon them, that the City of Rome was recovered by the very army which had fled from the Alia to Veii, and the Caudine legions that had returned to Rome without their arms were sent back armed to Samniun, and made the same enemy ... themselves fall under the yoke'

(84) a. Cic. *Att.* 6,2,8: *inclusum in curia senatum habuerunt Salaminum ita multos dies ut interierint non nulli fame*
'they kept the senate shut up in the senate-house for so many days that some of them actually perished of hunger'
b. Cic. *Att.* 6,1,6: *inclusum in curia senatum Salamine obsederat, ut fame senatores quinque morerentur*
'he had shut up and besieged the senate in the senate-house, so that five senators died of hunger in consequence'[133]

Other theories appeal to the use of the perfect in order to highlight the impression that a past action still has on the speaker or if there is a change in temporal reference and the moment of the occurrence of the speech act is referred to, not to the past of the verb of the main clause.[134] The proposed solutions fit only some cases.[135]

Alternative explanations are those that justify the use of the perfect by virtue of (i) the influence of a perfect tense in the main clause and (ii) the possible indicative in a nonsubordinated construction. Examples (84) show the impact of the main verb tense: *habuerunt* → perfect subjunctive *interierint*; *obsederat* pluperfect indicative → imperfect subjunctive *morerentur*. For its

133. The translations of (84a–b) are proposed by Woodcock (1959).
134. See, among others, Kühner & Stegmann (1914: 187–188), Thomas (1940: 365–366), and Segura (1974: 233).
135. See Cabrillana (1999: 99–100), Torrego (1999: 208).

part, the influence of the possible tense in a nondependent clause is exemplified in (85). These proposals have typological, statistical, and textual support.[136] Thus, for example, it is not unusual to find examples in which the result is articulated in this way ((86)–(87)). What we are trying to show is that the corresponding forms of the indicative mode that appear in the result clause would have been employed. In other words, in the real result clause, subjunctive forms appear that correspond temporally to those of the indicative of the equivalent nonsubordinated clause.

(85) a. Liv. 22,61,14: *quo in tempore ipso adeo magno animo ciuitas fuit ut consuli ex tanta clade, cuius ipse causa maxima fuisset, redeunti et obuiam itum frequenter ab omnibus ordinibus sit, et gratiae actae quod de republica non desperasset*
'such a lofty spirit did the citizens exhibit in those days that, though the consul was returning from a terrible defeat, for which they knew he was mainly responsible, he was met by a vast concourse drawn from every class of society, and a formal vote of thanks was made to him, because he had not given up on the republic'

b. Liv. 22,61,14: *quo in tempore ipso, consuli … redeunti et obuiam itum frequenter ab omnibus ordinibus est, et gratiae actae (sunt) … : adeo magno animo ciuitas fuit*
'in those days, the consul was met by a vast concourse drawn from every class of society, and a formal vote of thanks was made to him: such a lofty spirit did the citizens exhibit'

(86) Liv. 1,10,7: *bina postea, inter tot annos, tot bella, opima parta sunt spolia: adeo rara eius fortuna decoris fuit*
'for after so many years have elapsed and so many wars been waged, only twice have the *spolia opima* been offered: so seldom has Fortune granted that glory to men'

136. See Cabrillana (1999: 102–108), Heberlein (2001: 49–52).

(87) Liv. 24,5,14: *consciorum nemo, cum diu socios consilii torqueretur, aut latuit aut fugit; tantum illis in uirtute ac fide Theodoti fiducia fuit*[137]
'not one of the actual conspirators either concealed himself or sought safety in flight; so great was their confidence in the courage and honor of Theodotus'

Consistent with these approaches is the proposal that the perfect can provide a jump forward in the narration, in accordance with the link between the systems of grammatical aspect and narrative structure. In addition, it must be taken into account that subsequence is an inherent feature of the result clause.[138] The broad application of these proposals grants them greater explanatory force.

With regard to the use of the present subjunctive in dependence on a past-tense verb, this is a phenomenon that is much less frequent and evidently limited to appearing with verbs depending on perfects with a resultative sense (88) or those required by the context (89).

(88) Cic. *Verr.* I 1,12: *quam (prouinciam = Siciliam) iste ... ita uexauit ... ut ea restitui in antiquum statum nullo modo possit*
'which he devasted so effectually that nothing can restore it'

(89) Cic. *ac.* 3,6: *in eodem (Lucullo) tanta prudentia fuit ... ut hodie stet Asia Luculli institutis seruandis*
'Lucullus took so great a care that Asia still remains today with its institutions preserved'

The imperfect subjunctive depending on a main clause in the present appears very sporadically and can be explained by the atemporal sense of that present.[139]

137. Other examples: Ter. *Phorm.* 179–180, 282–284; Liv. 2,27,3; 2,45,6; 21,11,1; 2,42,4–5; 2,52,8; Fro. 1, p. 246; Tac. *ann.* 3,22,2, etc. See Section 4.2.2.
138. See Calboli (1995–1996: 140), Torrego (1999: 208–213).
139. The use of the pluperfect is also extremely reduced in the classical period. See Heberlein (2001: 52–53).

In contrast to the problem addressed in the result clauses, it must be pointed out that purpose clauses demonstrate a "model" behavior of adaptation of verbal tenses, with the exception that, since they possess the necessary feature of prospectivity, they do not employ the periphrasis *-urus sim / essem*. This constitutes an indication of the greater syntactic integration of the purpose clauses with regard to the main clause, something that is reduced in the case of result clauses, as has been seen in Section 4.1.

4.3. The syntactic function and the level of integration

Regarding the syntactic function of result and purpose clauses, the relations that subordinate adverbial clauses have in general is decisive. The most purely functional perspective understands that an embedded relationship occurs in the predication attributes to these clauses – in their prototypical form – a function of satellite attached to a nuclear predication.[140] In these cases, the dependent clauses do not provide information external to the development of the state of affairs described in the main clause.

One criterion for verifying this is the behavior of negation (Dik et al. 1990: 55 ff.). Specifically, the Adjuncts of the Predication that are less structurally close to the nucleus of the clause can be affected (90a) or not (90b) by negation. In the latter case, the negative situation expressed by the main clause is realized in the result (because this case involves a consecutive sentence) of the adverbial relation described in the dependent clause.

(90) a. Caes. *civ.* 1,27,2: *ne milites oppidum irrumperent, portas obstruit*
'he barricaded the gates in order that the soldiers might not break into the town'

140. See, e.g., Pinkster (1995: 125). For a definition of satellite of predication, see Dik et al. (1990: 28): "Predication satellites capture the lexical means which locate the State of Affairs designated by a predication with respect to spatial, temporal and cognitive dimensions".

b. Liv. 1,43,11: *nec fere unquam infra ita descenderent (sc. equites) ut ad infimos peruenirent*
'the voting (of the infantry of the First Class) very seldom decreased so that they never lowered themselves so far that they reached the lowest classes'

A somewhat different approximation is that of the aforementioned typological-functional approach.[141] Here, the concept of embedding is not dealt with because, among other reasons, this embedding does not seem to be identical in the case of purpose and result clauses,[142] nor does it occur in the same way in equivalent constructions in similar languages. This fact would considerably reduce its validity in interlinguistic description. Therefore, priority is given to the relation between the ways of perceiving and conceptualizing the two state of affairs (main and dependent) expressed by linked clauses, and the status they have in the context of the discourse.

In spite of this difference in perspective, both functional approaches recognize more specifically that clauses which, among other semantic relations, express purpose – and less clearly if they express result – can appear in different levels. In general, as was said above, they are most frequently located on the predication level. In this case, the dependent state of affairs expresses the purpose of the event of the main or independent state of affairs (91).

(91) Liv. 1,60,1: *flexit uiam Brutus ... ne obuius fieret*
'Brutus made a circuit in order to avoid meeting him'

In some cases, purpose clauses can appear on the proposition level when the motivation of the main state of affairs is a subjective, nonfactual opinion. The dependent clause would provide information about the degree of truthfulness in the situation described in the independent clause or about the speaker's subjective evaluation of the situation (92). It would correspond to the Satellite Disjunct of level 3 (σ_3) or Proposition in the model of Dik (1989: 50).[143]

141. See Section 1.
142. See Section 4.1.
143. See also Dik et al. (1990: 28) or Vester (1994: 272): "Proposition satellites capture the lexical means through which the speaker specifies his attitude towards the proposition

(92) Liv. 7,1,7: *inde … et ab seditione et a bello quietis rebus, ne quando a metu ac periculis uacarent, pestilentia ingens orta*[144]
'afterward when the situation was free from revolts and war, a great plague arose, so that they were never free from fear and dangers'

Finally, it is also possible that disjuncts can be found on the speech act or illocution level. In these cases, the state of affairs that expresses purpose does not correspond to the event of the main state of affairs, but rather it incorporates information relating to the purpose of the message. These are the cases that Pinkster (1995: 43–44) calls "Pseudo-Purpose satellites", and which are situated on the periphery of the predication as disjuncts (93).[145]

(93) Ter. *Phorm.* 1043–1045: *immo ut meam iam scias sententiam, / neque ego ignosco neque promitto quicquam neque respondeo/ priu' quam gnatum uidero*
'even more, so that you may now know my determination, I neither forgive nor promise anything, nor give an answer before I have seen my son'

These last constructions exhibit some characteristics of their own compared to prototypical purpose clauses, for example the dependence of clauses in which the verb is not situated in the *facere* sphere, but rather in the *dicere–scire* sphere; the frequent tendency toward initial position of the main clause; or the use of the present subjunctive even if there is a past tense in the main clause.[146] There are also cases of indirect speech in which the imperfect subjunctive appears in the clause introduced by *ut* and a future tense in the main clause (94).

he puts forward for consideration and therefore either explain the subjective epistemic modality of the matrix clause or justify its illocutionary force".

144. Example from Torrego (2001: 634).

145. In Dik's (1989: 60) terminology, Satellite of illocution (σ_4). A definition can be seen in Dik et al. (1990: 28): "Illocutionary satellites capture the lexical means through which the speaker modifies the force of the basic illocution of a linguistic expression so as to make it fit his communicative strategy". For an explanation of the different levels (which have also been called layers) in relation to adverbial clauses, see Hengeveld (1998: 344–347, 413).

146. See Torrego (2001: 635–636).

(94) Liv. 3,46,3: *(Appius ... diceret) ut iam sciret non id petulantiae suae sed Verginio absenti et patrio nomini et libertati datum, ius eo die se non dicturum neque decretum interpositurum*
'(Appius declared) that, to let him know that it was not to his insolence that he was making a concession, but to the absent Verginius, to the name of father, and to liberty, he would not administer justice on that day, or issue any degree'

The explanation of these characteristics lies, among other reasons, in the fact that they are not syntactically integrated into the nuclear predication and, therefore, they can escape from the *consecutio*. In addition, they are not affected by negation, do not respond to questions of the type "why?", and cannot be focused.

In principle, and in accordance with Pinkster's description, it could be thought that the same possibilities exist for relations that express result.[147] However, examples are not infrequent in which a result clause is clearly found on the clause level, although the fact that other semantic relationships appear[148] on this level and in related languages such as Greek[149] would allow us to suppose the possibility to its existence in Latin. Finally, it seems to be expected that result clauses would not be found on the level of the statement or illocution.

According to these data, the level of integration of purpose and result constructions can be outlined as in Table 5.

147. Vester (1994: 273) affirms that, when they are introduced by *ut*, these constructions only accept propositional satellites and therefore describe a propositional content. As additional support, the author offers the classification made by Quirk et al. (1985: 1070–1072): purpose clauses are handled as adjuncts (i.e., satellites of the predication), whereas result clauses are understood as disjuncts of content (i.e., satellites of the proposition). In contrast, Krylová (1997: 77) accounts for the rarity of this construction on the level of the proposition. Among other questions, it must be recognized that different authors do not seem to have the same concept of "proposition".

148. See, e.g., Pinkster (1995: 44–45) or Núñez (1998: 598) for conditional clauses, and Bolkestein (1989b) or Pinkster (1995: 45) for the causal type.

149. See Pl. *Ap.* 26a, in de la Villa (2000: 149) or Pl. *Ap.* 25e in Crespo, Conti, and Maquieira (2003: 430–431).

Table 5. Integration level of purpose and result clauses

	Extended predication	Proposition	Illocution
Purpose	+	+	+
Result	+	+?	−

By way of conclusion, it can be said that from the semantic and syntactic point of view, distinctive features exist between result and purpose clauses when these possess paradigmatic characteristics. This distinction is obscured in cases in which the semantic-cognitive continuum between the two notions documents the existence of borderline constructions, and it becomes practically impossible as the language changes over time.

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Alessandra Bertocchi and Mirka Maraldi

Conditionals and concessives

1. Conditionals

1.1. Preliminary remarks

Many approaches have been adopted to describe conditional relations. As far as Latin is concerned,[1] the traditional tripartite subdivision of "real" (*realis*), "potential" (*possibilis*), and "unreal" (*irrealis*) conditionals seems to be the best, since it accounts for the differences in the use of both mood and tense. Schematically, "real" conditionals are in the indicative (1a), "potential" conditionals are in the present subjunctive (1b), while "unreal" conditionals are in the imperfect or pluperfect subjunctive (1c), according to whether the reference time is the present or the past. However, a distinction that takes into account the relation obtaining between the protasis *p* and the apodosis *q* also seems to be useful. Sweetser (1990) distinguishes three types of conditionals: content, epistemic, and speech act.[2] Content conditionals relate states of affairs and are generally used by the speaker to make predictions (as in (2a)); epistemic conditionals allow abductive inferences to be drawn: previously established knowledge of the state of affairs in the protasis allows the speaker to pass on to the conclusion in the apodosis (as in (2b)); while speech act conditionals specify a condition not for the truth but for the legitimacy of asserting the apodosis (as in (2c)).

(1) a. Cic. *div*. 2,41: *si di sunt, est diuinatio* ("real" conditional)
'if there are gods, there is divination'

1. On conditional clauses in Latin, see C. Lehmann (1973), Maurel (1979), Baratin (1981), Vairel (1981), Orlandini (1993), Nuñez (1996), and Calboli (1996).
2. This classification seems to correspond to the subdivision into predicational, propositional, and illocutionary conditionals proposed by Functional Grammar (cf. Dik et al. 1990).

b. Cic. *Phil.* 2,8: *sed quid opponas tandem, si negem me umquam ad te istas litteras misisse?* ("potential")
'but what reply would you make, were I to deny I had ever written that letter to you?'

c. Cic. *Att.* 8,1,4: *ego, si somnum capere possem, tam longis te epistulis non obtunderem* ("unreal")
'if I could sleep, I would not bother you with such long letters'

(2) a. Cic. *Att.* 2,11,2: *eo si ante eam diem non ueneris, Romae te fortasse uidebo*
'if you can't get here before that date, perhaps I shall see you in Rome'

b. Cic. *inv.* 1,47: *si multus erat in calceis puluis, ex itinere eum uenire oportebat*
'if there was much dust on his shoes, he must have been on a journey'

c. Cic. *orat.* 208: *itaque posteaquam est nata haec uel circumscriptio uel comprehensio uel continuatio uel ambitus, si ita licet dicere*
'consequently, since the invention of this style – call it *circumscriptio* or *comprehensio* or *continuatio* or *ambitus* if you will'

1.1.1. Paratactic conditionals

Usually, conditional clauses are introduced by the subordinating conjunction *si*. There are, however, frequent instances of conditionality expressed by means of parataxis.[3] Hofmann & Szantyr (1972: 659) and Hofmann (1985: §103) give some examples of such uses, evidenced in every period of the language and found particularly in the *Umgangssprache* but not unknown also to the classical *Kunstprosa*. The examples may be in the imperative, the indicative, or the subjunctive. An analysis of the imperative conditional is given by L. Löfstedt (1966: 100–103), who underlines that the linking with the main clause in Early Latin is often asyndetic or made through *ac* (3). The asyndetic construction persists not only in the popular language, but also in more

3. On paratactic conditionals in modern languages cf. Haiman (1983).

elevated genres (4). The linking may also be obtained through the adjunction of *iam* or *tum* in the apodosis (5). Beginning in the Augustan age, the conjunction *et* too can be found between propositions semantically related by a conditional relationship (6). As shown by the quoted examples, the mood of the apodosis is frequently the indicative and the time is the future, simple or perfect.

(3) a. Ter. *Phorm.* 561: *audacissume oneris quid uis inpone, ecferet*
'don't hesitate to put the heaviest burden on him, he'll carry it through'

b. Plaut. *Bacch.* 695: *perge ac facile ecfeceris*
'you go ahead, and you'll carry it through easily'

(4) a. Cic. *Phil.* 14,3: *tollite hanc: nullam tam prauae sententiae causam reperietis*
'take away this reason, and you will find none for so perverse a proposal'

b. Cypr. *unit. eccl.* 5: *ab arbore frange ramum, fractus germinare non poterit*
'break a branch from a tree: once broken it will not be able to germinate'

(5) a. Plaut. *Rud.* 1007: *uerbum etiam adde unum, iam in cerebro colaphos apstrudam tuo*
'you add just one more word and I'll bury my fists in your brains'

b. Plaut. *Capt.* 338: *ausculta, tum scies*
'listen, and you will know'

(6) a. Verg. *ecl.* 3,104: *dic … et eris mihi magnus Apollo*
'tell me and to me you will be great Apollo'

b. Petron. 137,9: *multa loquor: quod uis, nummis praesentibus opta / et ueniet*
'I have said enough: with money about you, wish for what you like and it will come'

Although conditional clauses are among the first cases of such a construction in colloquial Latin, hypotaxis is completely avoided in formulaic expressions

indicating a double condition (7). How such formulas developed from original double questions[4] via deletion of the answer to the former question is shown by double questions in the indicative (8) or subjunctive mood (9). As shown, along with the pattern in the indicative mood, paratactic conditionals in the subjunctive are also not rare. In such cases, the subjunctive is independent of the suppositive or hypothetical type. Its tense is the present when the hypothesis concerns present time, and the pluperfect when the hypothesis relates to the past (10). There are also examples where paratactic conditionals co-occur with conditional clauses introduced by *si* (11). In the usual order of paratactic conditionals, the protasis precedes the apodosis. There are some rare cases in which the order appears to be inverted.[5] The first examples are found in poetry, but in late prose writers as well there is evidence of such a collocation (12).

(7) a. Ter. *Haut*. 643: *prosit obsit*
'helpful or hurtful'
b. Petron. 71,11: *uelit nolit*
'whether he likes it or not'

(8) a. Ter. *Eun*. 252: *negat quis: nego, ait: aio*
'if one says no, I say no; if one says yes, I say yes'
b. Dessau inscr. n. 9453: *uincis: gaudes, perdis: ploras*
'if you win, you rejoice; if you lose, you cry'

(9) Cic. *nat. deor.* 1,57: *roges me . . . : nihil fortasse respondeam; quaeras . . . : nihil dicam mihi uideri minus*
'if you ask me, very probably I shall make no reply; but if you inquire, I shall say that nothing seems to me less likely'

(10) a. Petron. 77,6: *assem habeas, assem ualeas*
'if you have a penny, that is what you are worth'

4. But as suggested by Kühner & Stegmann (1962: 165), it cannot be said that *negat quis, nego* will be written *negat quis? nego.* Also, according to Pasoli (1966: 96) there is no need to suppose an interrogative origin in the protasis.
5. Cf. Norberg (1937: 110): "quae collocatio multo durior est neque a principio invenitur".

b. Plin. *epist.* 1,12,8: *dedisses huic animo par corpus, fecisset quod optabat*
'had you given him strength equal to his resolution, he would have brought to pass what he desired'

(11) a. Cic. *Verr.* II 5,168: *cognosceret hominem, aliquid de summo supplicio remitteres, si ignoraret, tum … hoc iuris in omnes constitueres*
'should he identify the man, you would no doubt lessen the extreme severity of the sentence: should he fail to do so, then you would be free to set up this precedent for all'

b. Cic. *parad.* 44: *filiam quis habet, pecunia est opus; duas, maiore; pluris, maiore etiam; si, ut aiunt Danaum quinquaginta sint filiae, tot dotes magnam quaerunt pecuniam*
'a man has a daughter, he needs money; two, more money; more than two, more money still. And if a man were to have fifty daughters, like Danaus in the story, that many dowries call for a lot of money'

(12) a. Stat. *Theb.* 12,342–343: *uincam uolucres, sit adire potestas, / excludamque feras*
'given access, I shall outdo the birds and shut out the wild beasts'

b. Greg. Tur. *Franc.* 7,1: *illud plerumque reuoluebat, melius sibi fieri, esset inter monachos occultus*
'many times he thought that it would be better for him if he had hidden among the monks'

1.1.2. The origin of conditional clauses

Even though paratactic conditional sentences can be found in every period of the Latin language,[6] the combination of two independent clauses may be considered the origin of the subordinate conditionals. In such paratactic forms, mood can be indicative, subjunctive, or imperative, as we have seen above. It

6. This form is frequently and especially elegantly used by Martial, as underlined by Ricottilli in her notes to Hofmann (1985: 256 n. 2).

is probable that the optative too has merged into this type of construction, giving way to the conditional subordinate clause from two coordinated independent clauses: *si uenias! laetus sim*[7] (13). According to Hofmann (1985: 255) and Hofmann & Szantyr (1972: 657), one of the origins of the subordinate conditional clause is the "verification question" (*Vergewisserungsfrage*) as in (14).[8] The development of the subordinate conditional clause from paratactic forms goes along with the gradual loss of the deictic force of the ancient adverb *si* ('so'),[9] which is still preserved in this sense in early examples. In this way, according to Hofmann & Szantyr (1972: 658), Plaut. *Most.* 1173: *quiesce, si sapis* properly means 'be quiet, so you are wise'. This original meaning is common also to the ancient and ironical formula *si dis placet,* used to express surprise or indignation (15). In the same way, Plaut. *Mil.* '571': *ne tu, hercle, si te di ament, linguam comprimes* means 'And as for you, by heaven, if the Lord is to love you, you will certainly hold your tongue' (lit. 'so the gods love you, you will hold your tongue'.[10]

(13) Cic. *Scaur*. 47–48: *qui utinam posset parumper exsistere! / Eriperet ex hac flamma stirpem … suam*
'would that he could be among us again but for a moment! From these flames would he snatch his descendant'

(14) a. Plaut. *Bacch*. 502: *illum exoptauit potius? Habeat*
'longed for him instead of me, did she? Let her have him!'
b. Plaut. *Asin.* 93: *defraudem te ego? age sis, tu sine pennis uola*
'I cheat you out of it? Come, sir, will you kindly fly without wings!'
c. Plaut. *Aul.* 157: *his legibus dare uis? cedo!*
'do you still wish it, on these conditions? Produce her!'

7. Cf. Traina and Bertotti (1985: 431).
8. This, however, is a mere hypothesis that cannot be confirmed, since the lack of punctuation marks in Latin makes it impossible to judge with certainty.
9. This form is related to the Indo-European pronominal root **so*-. Cf. W. Lehmann (1984).
10. Pasoli (1966: 94) considers the sense of *si* to be desiderative in this case. That this form is to be equated with optative formulas such as *ita me di ament* is accepted, among others, by Traina and Bertotti (1985: 431) but rejected by Hofmann & Szantyr (1972: 658).

(15) a. Ter. *Eun.* 919–920: *si dis placet, / spero me habere, qui hunc meo excruciem modo*
'gods willing, I hope I have the means of torturing him to my heart's content'
b. Plaut. *Capt.* 454: *expediui ex seruitute filium, si dis placet*
'I've set my son free, gods willing!'

In Classical Latin, the conditional clause is remarkably widespread. As an example of this broad diffusion, it may be considered that eleven speeches by Cicero begin with a *si*-clause (cf. Laurand 1965: 321 n. 3) and that this construction is extremely frequent in his letters, especially in those to Atticus. In the popular language too, *si* was frequent in every period of Latin. In post-Classical and Late Latin, *si* also entered into new combinations while traditional linkages assumed new senses as well, as we will see.

1.1.3. Condensed conditions

The conditional idea may also be expressed by a syntactic device different from a *si*-clause. Nouns, adverbs, adjectives, and nonfinite verb forms may be interpreted as an implicit protasis in certain cases and may be considered abbreviated or condensed conditions. Consider the examples in (16) of nouns and adjectives. Frequently infinitives may function as nouns and are not different from the nominal cases seen above (17). The same holds for present or past participles which are frequently found with a conditional sense, especially in the ablative absolute (18). There are also particular conditional uses where *si* is expressed but the verb is omitted. Such are the phraseological uses of phrases like *si nihil aliud* and *si forte*. In both (19a) and (19b), the phrase is incidental, is used like an adverb with the sense 'at least', 'at any rate' in (a) and 'perhaps' in (b). In (b) the function of *si forte* can be described as a suspension of the existential presupposition of the quantifier involved, *aliquis*. In other words, such a phrase indicates that the corresponding proposition is among the beliefs which the speaker holds with a relatively low degree of certainty. The function of *si nihil aliud* in (a) is to assert a weak predicate, or to hope that at least the weak predicate (*ut eum obsoletius uestitum uideret*) is true, while the assertion of a stronger predicate is doubtfully true.

(16) a. Cic. *Sest.* 28: *habet orationem talem consul, qualem numquam Catilina uictor* (= *si uicisset*) *habuisset*
'consul as he was, he delivers a speech such as a victorious Catiline would never have uttered'

b. Cic. *Rab. Post.* 33: *neque enim Pompeius me sua causa quicquam facere uoluisset inuitum*
'indeed, Pompey would never have wished me to do anything I did not want to do in order to please him'

(17) a. Cic. *Phil.* 14,35: *quam ob rem maximum quidem solacium erit propinquorum … declarari et uirtutem suorum et populi Romani pietatem*
'wherefore it will be the greatest consolation to those near to them … if we record the valor of their kinsmen and the affection of the Roman people'

b. Tac. *Agr.* 33,6: *nec inglorium fuerit in ipso terrarum ac naturae fine cecidisse*
'nor would it be inglorious to fall at the world's edge and nature's end'

(18) a. Cic. *Mil.* 50: *nemo ei neganti non credidisset*
'no one would have believed him if he had denied it'

b. Cic. *Caecin.* 77: *nam ipso praesente de uirtute eius et prudentia timidius dicerem*
'for if he were present, I should be nervous about referring to his soundness of character and of judgment'

(19) a. Cic. *Verr.* II 1,152: *uenit in iudicium, si nihil aliud, saltem ut eum cuius opera ipse multos annos esset in sordibus paulo, tamen obsoletius uestitum uideret*
'he came into court for one purpose, if no other – to see the man who had made him dress in rags these many years, now dressed himself, after all, a little more shabbily himself'

b. Cic. *de orat.* 3,47: *ex quo uereor ne nihil sim tui nisi supplosionem pedis imitatus et pauca quaedam uerba et aliquem, si forte, motum*
'which makes me afraid that I have copied nothing of yours except the stamp of the foot and a few specific words, and possibly some gestures'

1.2. Types of conditional clauses

The traditional tripartite subdivision generally proposed for Latin conditional clauses and which we have quoted at the beginning of this chapter has been made more exact and precise by contemporary Latin grammarians such as Cevolani (1960), Traina and Bertotti (1985), and Pasoli (1966). According to them, conditional clauses are better classified as objective and subjective. Subjective clauses, in their turn, can be possible or unreal. Such tripartite subdivision represents a simplification with respect to Greek, which has four different forms to express conditionality. It represents, on the other hand, a specialization with respect to Romance languages, which generally make use of only two types. Italian, for example, does not distinguish between possible and unreal conditionals (20). The three different Latin types are distinct from one another in both mood and tense.

(20) a. *Se tu studiassi, passeresti l'esame*
'If you studied (as you can do), you would pass your exam'
b. *Se tu studiassi, passeresti l'esame*
'If you studied (but you don't study), you would pass your exam'

1.2.1. The first type: Objectivity

By using the "objectivity" type, the speaker asserts a relation between a protasis and a consequence, without expressing any judgment about its actualization. The mood of the protasis is the indicative, the mood of the apodosis is generally the indicative (as in (21)), but it may also be an imperative or one of the different independent subjunctives, such as potential or dubitative, as shown in (22). Indicative tenses show several combinations (in the order protasis – apodosis [lettered examples correspond to letters in the following list]).[11]

11. Cf. Hofmann & Szantyr (1972: 660–661) and Bennett (1910, 1: 60–76).

a.	Present – Imperfect	very rare and limited to Early Latin
b.	Present – Future	before and after Cicero, more common than the combination Future – Future
c.	Future – Future	dominant in Cicero
d.	Future – Present	found in every period from Early Latin onward, though rarely
e.	Simple future – Future perfect	found already in Plautus
f.	Future perfect – Future perfect	rare, but already evidenced in Early Latin
g.	Perfect – Future	also found already in Early Latin, but it persists also in Late Latin
h.	Imperfect – Future	evidenced only since Cicero
i.	Pluperfect – Imperfect	a rare pre-classical combination
j.	Simple future, Future perfect – Logical perfect	common in Plautus and Terence, but not in Cicero
k.	Future perfect – Present	already found in Plautus, regularly and widely used by some late authors

(21) a. Ter. *Phorm.* 1023: *iam tum erat senex, senectus si uerecundos facit*
'he was old already, if it's old age that makes men modest'

b. Sall. *Catil.* 58,9: *si uincimus, omnia nobis tuta erunt*
'if we win, complete security will be ours'

c. Cic. *de orat.* 2,131: *si erit . . . in moribus ac uoluntatibus ciuium suorum hospes, non multum ei loci proderunt illi, ex quibus argumenta promuntur*
'if he . . . is a stranger to the manners and disposition of his fellow-countrymen, those commonplaces from which proofs are derived will benefit him only a little'

d. Cic. *de orat.* 3,118: *huic generi subiectae sunt cohortationes, obiurgationes, consolationes, miserationes … et, si ita res feret, mitigatio*
'this class comprises modes of exhortation, reproach, consolation, compassion, … and, if so indicated by the situation, of allaying all the emotions'

e. Plaut. *Capt.* 968: *si eris uerax, ⟨ex⟩ tuis rebus feceris meliusculas*
'if you are truthful, you will have made things go better for you'

f. Plaut. *Amph.* 198: *si dixero mendacium, solens meo more fecero*
'if I do tell a lie or two, it won't be anything extraordinary for me'

g. Plaut. *Rud.* 1103: *si parum intellexti, dicam denuo*
'if you missed it, I'll tell you a second time'

h. Cic. *Att.* 14,1,1: *si ille … exitum non reperiebat, quis nunc reperiet?*
'if he … could not find a solution, who will find one now?'

i. Cato *or. frg.* 1,13: *si quis strenue fecerat donabam honeste*
'if one had behaved bravely, I rewarded him splendidly'

j. Plaut. *Amph.* 320: *perii, si me aspexerit*
'I'm lost, if he catches sight of me'

k. Filastr. 80,4: *si ergo ita senseris omnipotentiam domini christi cognoscis*
'if you will have thought so, you know the omnipotence of Christ the Lord'

(22) a. Cic. *Phil.* 2,119: *etiam corpus libenter obtulerim, si repraesentari morte mea libertas ciuitatis potest*
'even my body will I gladly offer if the liberty of the state can be realized by my death'
b. Cic. *Mur.* 74: *ad cenam petitionis causa si quis uocat, condemnetur?*
'if anyone issues an invitation to dinner to further his campaign, should he be condemned?'

1.2.2. The second type: Possibility

The "possibility" type is a subjective conditional by which the hypothesis is judged as possible by the speaker. The mood is the subjunctive in both the protasis and the apodosis; the tense is the present (23). The conditional clause of the second type cannot be referred to the past. Rarely, a perfect subjunctive is found, which can express either anteriority of the protasis or an accomplished aspectual value of the apodosis. See for example (24), where *fugerit* signals that the time of the protasis is before the time of the apodosis, while *perierim* signals the accomplished aspect of the apodosis. The conditional clause of the second type does not have a wide development in Classical Latin and is mostly found in crystallized expressions or in a limited number of particular forms, such as *exempla ficta* – imaginary hypotheses which an author uses to prove a theory (25).[12]

(23) a. Ter. *Eun*. 355–356: *si scias quod donum huic dono contra comparet, / magis id dicas*
'if you knew what a gift he has in mind to match this gift, you'd say so the more'

b. Cic. *Brut*. 287: *orationes … imitari neque possim, si uelim, nec uelim fortasse, si possim*
'as for the speeches, I could not imitate them if I wished, nor should I wish to, I imagine, if I could

(24) Ter. *Haut.* 316: *ubi si paululum modo quid te fugerit, ego perierim*
'if something should escape your notice even a little, I'm finished

(25) Cic. *off.* 3,95: *si gladium quis apud te sana mente deposuerit, repetat insaniens, reddere peccatum sit, officium non reddere*
'if a person leaves his sword with you when he is in his right mind, and demands it back in a fit of insanity, it would be criminal to restore it to him, it would be your duty not to do so'

12. Close to *exempla ficta* is the type known in rhetoric as *conformatio* or *personae fictio*: Liv. 39,37,3: *si exsistat hodie ab inferis Lycurgus, gaudeat ruinis eorum*.

1.2.3. The third type: Unreality

In the conditional clause of the third type, "unreality," the protasis is expressed with a judgment of unreality. The subjunctive tenses used are imperfect in relation to a present/future time and pluperfect in relation to a past time (26). As was usual in Archaic Latin, in Classical Latin the imperfect can also be found in relation to a past tense (27). The apodosis is frequently found in the indicative mood. The more common types in the indicative are the expressions of modality (as the modal verbs *possum, debeo* or the passive periphrastic form) (28). Also the active periphrastic forms are almost always in the indicative when used in relation to an unreal protasis (29).

(26) a. Sen. *dial.* 7,24,5: *diuitias nego bonum esse: nam si essent, bonos facerent*
'I deny that riches are a good; for if they were, they would make men good'

b. Quint. *inst.* 7,1,16: *si occidisset, recte fecisset: sed non occidit*
'if he had killed him, he would have been justified in so doing: but he did not kill him'

(27) Cic. *Att.* 16,5,2: *Quintus filius fuit mecum dies compluris et, si ego cuperem, ille uel plures fuisset*
'Quintus my son has been with me several days, and, if I had desired, he would have stayed longer'

(28) a. Cic. *Phil.* 2,99: *omnibus eum contumeliis onerasti, quem patris loco, si ulla in te pietas esset, colere debebas*
'you loaded with every insult the man whom, if you had any affection in you, you ought to have honored as a father'

b. Liv. 2,38,5: *si unum diem morati essetis, moriendum omnibus fuit*
'if you had delayed there a single day, you would all have had to die'

(29) Ov. *trist.* 1,7,40: *emendaturus, si licuisset, eram*
'I would have corrected (it), had it been permitted'

There are slightly different opinions among grammarians about the semantic value of the periphrastic form, whether it corresponds perfectly to the subjunctive conditional of unreality or whether it maintains its specific sense

of expressing intention, predestination, or imminence. According to Pasoli (1966: 113), it is just such senses that make the periphrastic form apt for expressing that a process has not come to its actualization, that is, for expressing unreality. A proof of this equivalence is the fact that in Cicero there is only one example of subjunctive in the active periphrastic form of a conditional clause (30).[13] A reason for scarcity of this use might be its superfluity, since there is no need to use the subjunctive if the indicative by itself semantically approaches the expression of unreality.[14] The future participle, in turn, in post-Classical Latin may be the apodosis of a conditional clause, especially of the third type (31). An extended use of the indicative is evidenced in negative conditional clauses introduced by *nisi* and *ni*, as we will see below. What is diachronically interesting about such use of the indicative is that its influence in different types of apodosis resulted in the generalization of the indicative in the apodosis of conditionals of the third type. In Classical Latin, this was limited to cases with the verb *esse* (32), but, in later periods, it extended to other verbal forms as well (33). As suggested by Pasoli (1966: 116), the development of the conditional clause of the third type into post-Classical Latin and pre-Romance was mainly characterized by the generalization of the indicative in the apodosis.[15] In later periods the indicative extended to the protasis as well (34). Another change in the passage from Classical to Late Latin concerns the use of the pluperfect subjunctive in the place of an imperfect tense in conditional clauses of the third type related to a present or future time (35). A final consideration on the pluperfect must be added. The pluperfect subjunctive should always have a counterfactual interpretation. Counterfactuals refer to situations that we already know have not happened (affirmative counterfactuals) or that we already know have happened (negative counterfactuals). On the contrary, truly hypothetical contexts are those where one does not know whether they are actualized or not. If the counterfactual value of the pluperfect is predominant, there are also cases where it has a merely hypothetical

13. More precisely, the example in question is a concessive conditional clause, as we will see below.
14. Cf. Pasoli (1966: 114).
15. Of particular interest is the periphrasis formed by *habebam* plus an infinitive: Ps. Aug. *serm.* 253,4: *sanare te habebat Deus per indulgentiam*. On the extended use of the indicative see also Bonnet ([1890] 1968) that we quote in Section 1.3.

value (36). Similar properties are shown by the pluperfect in many languages. Usually, the two interpretations are both possible and only the context or further information can disambiguate. See the examples of Italian and English given by Mazzoleni (1991: 759) and Comrie (1986: 87), respectively (37).

(30) Cic. *div.* 2,21: *etiamsi obtemperasset auspiciis, idem euenturum fuisset*
'even if the auspices had been obeyed, the same result would have happened'

(31) Plin. *epist.* 3,21,6: *dedit enim mihi quantum maximum potuit, daturus amplius, si potuisset*
'for he gave me the most he could, and he would have given me more, if only he had the means'

(32) Verg. *georg.* 2,132–133: *et, si non alium late iactaret odorem, / laurus erat*
'and it would be a bay tree, if it did not throw about another scent'

(33) a. Amm. 22,10,4: *gaudebam plane praeque me ferebam, si ab his laudarer*
'I should certainly rejoice and show my joy, if I were praised by them'
b. Greg. Tur. *Franc.* 5,18: *si fas fuisset, angelum de caelo euocaueram*
'if it had been allowable, I would have called an angel from the sky'

(34) Fredeg. *chron.* 2,62: *si iubebas … armati accederemus ad prilium*[16]
'if you order it, we should go in arms to the battle'

(35) Arnob. *nat.* 1,33: *ipsa denique hiscere si animantia muta potuissent … non … intellegerent esse deum?*
'if even the animals, which cannot speak, could express themselves, would they not understand that God exists?'

16. Cf. French 's'il venait, je partirais'. In Italian too, mostly in colloquial registers, the imperfect indicative is widely used in unreal conditionals ('se venivi un'ora fa, non mi trovavi'). On the semantic value of the imperfect and on the reasons why it is apt to express unreality, see Pasoli (1966: 117).

(36) Caes. *Gall.* 1,20,4: *quod si quid ei a Caesare grauius accidisset … neminem existimaturum non sua uoluntate factum*
'if too severe a fate befalls him at Caesar's hands, no one will think that it has been done without his consent'

(37) a. *Se quell'edificio fosse stato venduto, nell'archivio del catasto ce ne sarebbe traccia: bisogna quindi passare a controllare in quell'ufficio*
'If that building had been sold, then there would be a record in the cadastral archive: we must go and check in that office'
b. *If John had been at the scene of the crime at the time when the murder was committed, Mary would have seen him leaving. So we must get hold of her to find out if she didn't see him*

1.3. Some historical considerations

The tripartite classification presented above with its regularities in the use of moods and tenses, however, must not be considered as a rigidly schematic frame. There are in fact many variations. In the variability and instability of the three different types, a role is played by the use of conditionals in Early Latin. As compared to the tripartition of Classical Latin, the main feature of conditionals in Early Latin[17] is that the division is into only two types, an objective and a subjective, since subjective conditionals do not express a distinction between potential and unreal. The present (or perfect) subjunctive is used to express possibility in relation to a present/future tense (as in (38a)) but it may also have a counterfactual value (as in (38b)). The imperfect subjunctive is used to express possibility in relation to a past tense (as in (39a)), but it easily passed to express what is contrary to fact, that is, unreality, in relation to the present (as in (39b)). Perfect and pluperfect when used in the protasis express anteriority with respect to a present/future and to a past tense, respectively (40). But the pluperfect, as well as the imperfect, easily passed on to expressing what is contrary to fact; that is, unreality in relation to the past

17. Cf. Ernout & Thomas (1951), Gandiglio and Pighi (1966), and Pasoli (1966), among others. Particular attention to the historical development is paid by Mugler (1980).

(41). The complexity of the conditional clause in Classical Latin is the result of the survival of the ancient situation, which, however, is strictly intertwined with the new one. As an example of this survival, consider the formulaic and crystallized use of clauses of the type *mentiar, si dicam* (42). Here we would expect the tenses of the conditional clause of the third type, but these examples are found instead in the present tense (as is usual with the second type), a relic of an archaic phase where the distinction was not between possibility and unreality, but between present and past.

(38) a. Plaut. *Men.* 640: *haud rogem te, si sciam*
'I wouldn't ask you if I did know'
b. Plaut. *Poen.* 1219–1220: *si sim Iuppiter, / iam hercle ego illam uxorem ducam*
'if I were Jupiter, by Hercules, I'd take her for my wife at once'

(39) a. Plaut. *Aul.* 742: *deos credo uoluisse; nam ni uellent, non fieret*
'I think it must have been fated; otherwise it wouldn't have happened'
b. Plaut. *Cas.* 811: *si equos esses, esses indomabilis*
'if you were a horse, you'd be untameable'

(40) a. Plaut. *Trin.* 468–473: *si in aedem ad cenam ueneris ... / ... / ... / ... / ... / edisne an incenatus... accubes?*
'supposing you went to a temple dinner, would you eat or stay dinnerless?'
b. Plaut. *Trin.* 568: *si ante[a] uoluisses, esses; nunc sero cupis*
'if you'd wanted it before, you would be; now your desire's too late'

(41) Plaut. *Mil.* 718: *Pol si habuissem, satis cepissem miseriarum e liberis*
'by Pollux, if I had had children, misery enough they'd have brought me'

(42) Cic. *de orat.* 1,145: *quam ego si nihil dicam adiuuare, mentiar*
'if I were to call it useless, I would be lying'

The difficulty of distinguishing with precision the differences among the three types of conditional clause may have led to the innovations of Late Latin. The most interesting changes regard mood and the tendency of the indicative

to enlarge and to replace the subjunctive. This is only a tendency in some authors, while it is a fully realized phenomenon in others. For example, in the *Itinerarium Egeriae* all the *si* clauses are in the indicative (43). Also worth noting in the *Itinerarium Egeriae* is the use of *si* in direct questions, always with the indicative (44), a usage evidenced only in Late Latin. Conversely, more common and also earlier is the use of *si* in indirect questions, such as (45).[18] Some cases can present ambiguity between an indicative future perfect and a perfect subjunctive, even if the concomitant occurrence of a first-person verb form can in some cases remove any doubt (46).[19] Sure examples of subjunctive are found with complex conditional connectives such as *si tamen* or *ac si.* In the *Itinerarium Egeriae, ac si* has almost completely replaced *quasi* for the expression of the comparative conditional (47). Like Egeria, Iordanes too makes use of *ac si*, but not as a substitute for *quasi*, since there are 9 examples of *ac si* and 55 of *quasi*.

(43) *Itin. Eger*. 31,4: *sed et si quae matrone sunt aut si qui domini*
‘on account of the older women and men’

(44) *Itin. Eger*. 45,3: *et sic singulariter interrogat episcopus uicinos eius, qui intrauit, dicens: ‘si bonae uitae est hic, si parentibus deferet, si ebriacus non est aut uanus?’*
‘as they come in one by one the bishop asks their neighbors questions about them: “is this person leading a good life? does he respect his parents? is he a drunkard or a boaster?” ’

(45) Prop. 2,3,5–6: *quaerebam sicca si posset piscis harena / . . . uiuere*[20]
‘I was as one that asks whether a fish may live on the dry sands

18. On the interrogative use of *si* see Herman (1996).
19. However, we are inclined to accept the future perfect as more probable in the other instances as well. On such cases, see Väänänen (1987: 82) and Kiss (1982: 57).
20. Against the idea that this Propertius occurrence may be the first use of *si* in an indirect question see E. Löfstedt (1962: 327), who takes into consideration cases with senses between interrogative and conditional sense in Plautus and Terence, such as: Plaut. *Trin.* 748: *uide si hoc utibile magis atque in rem deputas.* Completely interrogative is instead Ter. *Eun.* 838–839: *uide amabo, si non, quom aspicias, os inpudens / uidetur! :: Non est.* See also Lindskog (1895: 77). In every comment the influence of Greek on the interrogative use of *si* is underlined.

(46) *Itin. Eger.* 19,19: *unde si deus noster Iesus iusserit et uenero in patria, legitis uos, dominae animae meae*
'when I come home, if such is the will of Jesus our God, you yourselves must read them, dearest ladies'

(47) *Itin. Eger.* 19,6: *et ibi ostendit michi archiotypam ... tanti nitoris ac si de margarita esset*
'and there he showed me a huge marble portrait of him, which shone as if it were made of pearl'

Bonnet (1890: 656–658), in his analysis of the language of Gregory of Tours, enumerates the reasons that may have caused the withdrawal of the subjunctive, in addition to Greek influence. He cites the indicative of modal verbs such as *potui*, *debui*, *poteram*, *debebam*, with a sense corresponding to a modern conditional mood. From modal verbs this indicative extends to other verbs, which are found in the indicative mood in the apodosis of conditional clauses, where a subjunctive would be expected. Consider for example (48). This usage is also found in Gregory of Tours (49).

(48) Sulp. Sev. *dial.* 2,14,7: *etiamsi non relinquenda esset haec oratio, nox ipsa cogebat finire sermonem*[21]
'and even if this speech ought not to be abandoned, the night itself urged its conclusion'

(49) Greg. Tur. *Franc.* 1,31: *si enim domus mea ... huic operi digna esset, praestare non abnuebam*
'if indeed my house were suitable for this work, I should not refuse to offer it'

1.4. Conditional perfection

Simple conditionals of the form 'if *p*, then *q*', as in (1) above, may be "strengthened" to include their mirror image 'if not *p*, then not *q*' (50).

21. This example is given by Bonnet (1968: 657 n. 8), who, however, does not take into account that this is an instance of conditional concessive and that in such clauses the apodosis is independent of the protasis and the choice of mood and tense is freer than in the apodosis of conditional clauses.

(50) a. = (1) *si di sunt est diuinatio*
b. *si di non sunt, non est diuinatio*

The invitation to interpret conditionals such as (50a) as biconditionals such as (50b) is a pragmatic implicature known as "invited inference" since Geis and Zwicky (1971). The negative version ('if there aren't gods, there isn't divination') is equivalent to the necessary and sufficient condition usually expressed by 'only if' in English: 'only if there are gods is there divination'. The phenomenon by which *if* can be understood to mean *only if* is called "conditional perfection".[22] The invited inference of (50a) thus reflects the general tendency to interpret sufficient conditions as necessary *and* sufficient conditions, by a pragmatic mechanism based on the failure to mention other conditions leading to the consequent (cf. Schwenter 1999). Our main concern here is to examine which conditional contexts are candidates for conditional perfection and, specifically, in which way Latin expresses necessary conditions, given that, unlike most languages, the combination of 'if' (*si*) and 'only' (*modo*) has a different sense, as shown in Bertocchi (2001a, 2001b).

1.4.1. Necessary and sufficient conditions

Sufficient conditions can be described as conditions by which '*p* is enough for *q*' so that other conditions are not excluded; necessary conditions can be described as conditions by which '*p* is required for *q*', nothing else will do (cf. Wakker (1994)). It can often be shown that necessary and sufficient conditions are strictly intertwined. As Ducrot (1973: 138) noted, the expression *il suffit* usually implies that A is the weakest condition for obtaining B, but other conditions are not excluded. So, for example, (51a) expresses a sufficient condition but at the same time it involves more than a sufficient condition; otherwise (51b) would not contradict it. That (51a) and (51b) are incompatible derives from the fact that the condition of having a thousand francs is not merely sufficient, but also necessary. The meaning specifically contributed by an operator inducing a sufficient-condition interpretation is a scalar value, by which the element in its focus is evaluated as minimal, though higher values are not excluded. The peculiar property of a necessary condi-

22. See van der Auwera (1985, 1997).

tion is that the condition is presented not only as required but also as the sole sufficient one among all candidates, in that it excludes other conditions from holding.[23] The value of exclusiveness conveyed by *only* derives from its being a non-intrinsic, latent quantifier (cf. Longobardi 1988),[24] which excludes all the possible alternatives. In (52), for example, (a) involves the positive assertion (b) and the negative (c): with nouns the meaning of exclusion conveyed by *only* takes the form 'no X other than Y'.[25] With conditionals, the meaning of exclusion of *only if* takes the form 'not *q*, if not *p*': what *only* involves is that there exists only one condition on which '*q*' holds and this condition is '*p*', the negative 'no *p*' being excluded together with all other positive alternatives. In Latin, no particle meaning 'only' has comparable exclusive properties as those exhibited by 'only-NP' and *only if.* Such a meaning of exclusion is obtained by double negation, that is, by the explicit assertion of a negative existential quantifier (*nemo*) followed by the exception marker *nisi* (53). *Nisi* is the operator introducing a negative conditional clause. 'Only' obtains quantifying results of exclusion both when it focalizes a noun phrase, as in (52), and when it focalizes the conditional marker 'if'. In the same way *nisi* obtains the value of exclusion both when it occurs in a doubly negated construction where it focalizes a noun phrase (as in (53)), and in a double negation represented by a negative apodosis and a protasis introduced by *nisi* (as in (54)), which shows that Latin asserts explicitly what *only* asserts implicitly. To be an enemy of Cicero is the only way for Antonius to prove to be an enemy of the state, and *nisi* specifies a necessary condition; that is, the unique condition under which the state of affairs of the main clause can be actualized.

23. A test that clarifies the sense of necessary conditions expressed by means of *only if* is "cancellability". Pragmatic implicatures (such as conditional perfection) can be deleted, while semantic factors cannot. So the invited inference in *If you mow the lawn, I'll give you five dollars* can be annulled by *anyway*: *If you mow the lawn, I'll give you five dollars, but I will give you five dollars anyway*. On the contrary, *anyway* is not permitted with conditionals introduced by *only if*: *Only if you mow the lawn will I give you five dollars* cannot be cancelled by *but I will give you five dollars anyway*.

24. Longobardi (1988: 664) assigns to "only-NP" the following logical description: 'only NP = N$\exists x$, $x \neq$ NP'.

25. Cf. Horn (1996).

(51) a. *Il suffit d’avoir 1000 francs pour aller aux E.-U.*
b. *Il suffit d’avoir 800 francs pour aller aux E.-U.*

(52) a. *Only John will buy a new car*
b. *John will buy a new car*
c. *Nobody other than John will buy a new car*

(53) Cic. *Mil.* 46: *ut enim neminem alium nisi T. Patinam, familiarissimum suum, rogasset*
‘even supposing that he had asked no one else save his intimate friend Titus Patina’

(54) Cic. *Phil.* 2,2: *non existimauit sui similibus probari posse se esse hostem patriae, nisi mihi esset inimicus*
‘he did not think he could prove himself to his peers as an enemy of his fatherland unless he were unfriendly to me’ = ‘he thought he could … only if he was … ’

1.5. Exclusive *nisi* and exceptive *nisi*

We now analyze the two distinct uses which *nisi* can cover and compare the main properties that characterize each of the two types. We call them the exclusive use (similar to ‘only if’) and the exceptive use (similar to ‘unless’).[26]

26. The two meanings ‘only if’ and ‘unless’ are similar, and since the work of Geis (1973) it has been generally recognized that ‘unless’ does not in fact equal ‘if not’ but ‘only if’. But some differences have been put into evidence. For example, according to Athanasiadou and Dirven (1997), although the ‘unless’ construction is semantically very close to ‘only if’, with *unless* the main clause tends to be negated, whereas with *only if* this is not the case. Furthermore, Dancygier (1998: 169) has noted that by the comparison between (i) *it’ll be dark tomorrow only if the sun doesn’t rise* and (ii) *?it’ll be dark tomorrow unless the sun rises* it turns out that in certain cases the paraphrase of *only if* clauses with *unless* clauses gives odd results. The explanation for this contrast seems to be that the apodoses of *unless* sentences have an added special status: they are in fact not presented conditionally, but as independent assertions, and only then commented on in the *unless* clause, which is very much like an afterthought.

1.5.1. Exclusive nisi

As seen before, the exclusive type represents a necessary condition, has a doubly negative structure (a negative apodosis + a *nisi* protasis), and corresponds to the English conditionals introduced by *only if*. The exclusive conditional sentence is a structure which presents a strict cohesion between the two clauses *p* and *q* and which results in a unique utterance, where the protasis *p* is necessary to the meaning of the apodosis *q* (55).

(55) Cic. *Phil.* 12,20: *an L. Antonium aspicere potero, cuius ego crudelitatem effugere non potuissem, nisi me moenibus et portis et studio municipi mei defendissem?*
'shall I be able to look on Lucius Antonius, whose cruelty I could not have escaped had I not defended myself with walls and gates and the zeal of my own borough?'

Exclusive *nisi* clauses are generally counterfactual. Counterfactuals cannot be considered hypothetical, since, in our terms, truly hypothetical contexts are those where one does not know whether they are actualized or not.[27] On this basis, exclusive *nisi* clauses which are in most cases counterfactual are not hypothetical.[28]

1.5.2. Exceptive nisi

Exclusive and exceptive conditions function in opposite ways . In the exclusive type, *nisi p* represents the unique condition which allows or would allow the actualization of *q*, whereas in the exceptive type *q* is actualized in any case except one, that represented by *nisi p*. When the *nisi* clause expresses an exceptive sense, different degrees of integration of the exceptive clause into the sentence it modifies can be found. So, while the strictest relation concerns exclusiveness, in the exceptive sense there are intermediate degrees, as in (56). These degrees run up to the loosest connection, found in cases where

27. Cf. Bertocchi and Maraldi (2005).
28. This is relevant for the choice of the indefinite pronoun: Latin indefinites usually found in truly hypothetical clauses (= *quis*) do not occur in exclusive *nisi* clauses (see our analysis of quantifiers in this work, vol. 3).

the exceptive *nisi* expresses an afterthought, a repair, or a self-correction (57). Since the exceptive construction has a low degree of cohesion, one can say that it is formed by two different utterances separated by a pause. Unlike exclusive conditionals, with exceptive conditionals the clause *q* is asserted independently of the clause *p*. In (57) the clause introduced by *nisi quod*[29] represents a self-correction of the speaker, which leads to a reversal of the argumentative conclusions expected by the preceding *q* clause.

(56) Plaut. *Amph*. 765–767: *nimis demiror, Sosia, / qui illaec illic me donatum esse aurea patera sciat, / nisi tu dudum hanc conuenisti et narrauisti haec omnia*
'it is very extraordinary, Sosia, how she knows I was presented with a golden bowl there, unless you met her a while ago yourself and told her the whole story'

(57) Sen. *epist*. 47,6: *infelix, qui huic uni rei uiuit, ut altilia decenter secet, nisi quod miserior est, qui hoc uoluptatis causa docet quam qui necessitatis discit*
'hapless fellow, to live only for the purpose of cutting fat capons correctly – unless, indeed, the other man is still more unhappy than he, who teaches this art for pleasure's sake, rather than he who learns it because he must'

In addition, the ironic uses of *nisi* (more often *nisi uero*, *nisi forte*) present extremely relaxed cohesion. In most cases, they express a value which can be defined, in terms of classical rhetoric, as the strategy of *occupatio*, aiming to anticipate and refuse a possible objection on the part of the interlocutor. The refused objection represents an absurd or unsustainable point of view and as such it is ironically advanced by the speaker. In (58a), Cicero accuses all those who hesitate to call Antony 'enemy of the state' (*hostis*) of leaving the Roman soldiers uncertain whether they are fighting against enemies or against their fellow citizens. In (58b), Cicero's intention is to eliminate every gradation in a crime like parricide in relation to the social condition of the father victim: even while admitting a different dignity of life in relation to

29. *Nisi quia*, which is the most frequent expression in Plautus (cf. Lindsay [1907] 1988: 104), occurs only in Early Latin (cf. Juret 1926: 347).

social position, a violent death brought by the hands of one's own son erases every difference.

(58) a. Cic. *Phil.* 14,6: *quo usque igitur is qui omnis hostis scelere superauit nomine hostis carebit? Nisi mucrones etiam nostrorum militum tremere uoltis dubitantis utrum in ciue an in hoste figantur*
'how long then shall he who has surpassed all enemies in crime be without the name of enemy of the state? Unless you wish the very weapons of your soldiers to waver in doubt whether they should be plunged into a citizen or into an enemy'

b. Cic. *Mil.* 17: *intersit inter uitae dignitatem summorum atque infimorum, mors quidem inlata per scelus isdem et poenis teneatur et legibus. Nisi forte magis erit parricida, si qui consularem patrem quam si quis humilem necarit*
'in life let there be a distinction of standing between the highest and the lowest; but let death at least, when criminally inflicted, be amenable to both penalties and laws which shall be invariable – unless indeed a parricide is more truly so when the father he has murdered is an ex-consul than when he is a nobody'

In relation to hypotheticality, when *nisi* has an exceptive value (similar to *unless* in English) it is incompatible with counterfactuality, which only allows for one interpretation. Exceptive *nisi* is instead hypothetical, since *q, nisi p* presents *q* as well as the possibility of *not q*, as shown by (59). By analogy with exceptive *nisi*, *si non* also generally represents a true hypothesis, presenting *q* as well as the possibility of *not q.*[30] See, for example, (60), where reference is made to the order that the Gaditans decided to give to Gallonius, to leave Gades voluntarily: the *si non* clause is hypothetical, since it leaves two possibilities open, that Gallonius leaves or that he does not leave Gades.

30. An exception to this is *si non* clauses in the pluperfect, which can have a counterfactual sense.

(59) Cic. *Catil.* 4,4: *quare, patres conscripti, incumbite ad salutem rei publicae, circumspicite omnis procellas quae impendent nisi prouidetis*
'and so, conscript fathers, bend your energies to the salvation of the state, watch carefully all the storms that threaten unless you forestall them'

(60) Caes. *civ.* 2,20,3: *si id non fecisset, sibi consilium capturos*
'if he did not do so they would take measures for themselves'

1.5.3. Nisi *and* si non

Nisi and *si non* are two different ways for the conditional clause to find expression in negative form. Apart from the exclusive and exceptive types, which are peculiar to *nisi*, it is in general difficult to draw a clear distinction between *nisi* and *si non*. Compare, for example, (61), which refers to the same situation in similar terms, but in (a) *si non* is used, while in (b) *nisi* is used. Most grammars give a list of the structures where one of the two is more probable. So, for example, Traina and Bertotti (1985) enlist the following occurrences as typical of *si non*: (a) when a negative protasis is opposed to a positive protasis; (b) when the scope of the negation is on one term only, as opposed to another term of the clause; and (c) in the correlative structure of concessive value *si non...at* (*tamen*) (62). Conversely, typical of *nisi* are the cases we have seen above: the exceptives and the exclusives. The exceptive constructions are often strongly unbound so that they have the features more of a coordinate than a subordinate clause. In the colloquial language, *nisi* may have the same sense as 'but', an adversative coordinating particle (63). The doubly negative exclusive construct *non … nisi*, which is equivalent to the necessary condition expressed by *only if*, gradually acquires an adverbial sense and in post-Classical Latin is frequently found as a single word (*non-nisi*) or in the form of a nexus not separated by any intervening element (*non nisi*) (64). *Nisi* is also found in conditional sentences which are counterfactual but designate an action which could be realized were it not prevented by some intervening action, namely the one expressed by the *nisi* protasis. All such cases present the verb of the apodosis in the indicative: a pluperfect, a perfect with *paene*, an imperfect tense (65). Beyond single types prevailingly found with either particle, we propose a distinction general enough to cover

and explain the majority of cases of *nisi/si non*. In these general terms, *nisi* represents a condition, while *si non* represents a hypothesis.[31] The relation of simple supposition established by *si non* is shown in (66a) and can be contrasted with the relation of exclusive condition which would be established by the use of *nisi*, as shown by the fictitious example in (66b). The comparison is proposed by Di Bene (1963), according to whom Cicero would have a strange evaluation of justice if he had used (66b), because this clause means that the existence of justice is uniquely determined by the right of ownership; justice would be subverted only if the right of property is subverted. The comparison seems to explain the distinction between *nisi* and *si non* well.

(61) a. Cic. *Verr.* II 3,45: *hae litterae, iudices, L. Metelli quas audistis, hoc quantum est ex Sicilia frumenti hornotini exarauerunt; glebam commosset in agro decumano Siciliae nemo, si Metellus hanc epistulam non misisset*
'it is the letter from Metellus, gentlemen, to which you have just listened, that has grown all the grain we have had from Sicily this season. If Metellus had not sent off that letter, in all the tithe-paying areas of Sicily not one man would have turned one clod of soil'

31. We follow the suggestions made by Di Bene (1963), even though we are aware that opinions diverge as to whether a real division between "hypothesis" and "condition" can be traced, since most conditional clauses can be interpreted as both conditions and hypotheses. For this reason, a unique term has been proposed, general enough to cover all cases: some linguists consider "condition" the more general term, while others consider "hypothesis" to be the more general one. In Bertocchi and Maraldi (2005) we have indicated some of the different opinions. For example, among those who prefer "condition", Wakker (1994: 21–22) suggests that not only the clauses where *if* can be paraphrased as *on the condition that*, as in *If you mend my socks, I will cook for you*, can be analyzed as conditions; but the same analysis can ultimately also be applied to clauses for which the term hypothesis is highly appropriate. So, for example, in *If you were to win the lottery, would you buy that book?* it can be said that the realization of the state of affairs mentioned in the main clause (the decision to buy a book) depends on (is conditioned by) the realization of the state of affairs in the protasis (winning the lottery). On the other hand, Ducrot (1991) denies that the main meaning of 'if *p*, *q*' sequences is '*p* is condition of *q*' (even if it may characterize such a relation). On the contrary, according to Ducrot, it allows the realization of two successive illocutionary acts: (1) Ask the speaker to imagine (suppose) '*p*', (2) State '*q*' within the framework of this imaginary situation.

b. Cic. *Verr.* II 3,121: *illi ipsi qui remanserant uix decuma pars aratorum, relicturi agros omnes erant, nisi ad eos Metellus Roma litteras misisset se decumas lege Hieronica uenditurum, et nisi ab iis hoc petiuisset ut sererent quam plurimum*
'even those who remained on their farms, a bare tenth of the whole number, intended to go, and would have gone, had not Metellus told them in a letter from Rome that he would sell the tithes as required by the code of Hiero, and entreated them to sow as freely as possible'

(62) a. Cic. *Phil.* 2,54: *o miserum te, si haec intellegis, miseriorem, si non intellegis*
'o wretched man if you understand these things, more wretched still if you do not understand'
b. Cic. *Tusc.* 1,117: *si supremus ille dies non extinctionem, sed commutationem adfert loci, quid optabilius*?
'if the final day brings not annihilation but a change of place, what more can be wished for?'
c. Cic. *Phil.* 13,18: *Caesare dominante ueniebamus in senatum, si non libere attamen tuto*[32]
'while Caesar was master we used to come into the senate, if not as free men, at least in safety'

(63) Cic. *Att.* 11,23,1: *tuas litteras exspectabam, nisi illud quidem mutari, si aliter est et oportet, non uideo posse*[33]
'now I am expecting a letter from you: only I don't see how the thing is to be changed, if it is not as it ought to be'

(64) Suet. *Claud.* 8,2: *non nisi aegre et circuito demum triclinio recipiebatur*
'he took his place only with difficulty and after making the round of the dining room'

32. On the correlative structure *si non … at (tamen)* see Bertocchi (1998).
33. Cf. Traina and Bertotti (1985).

(65) a. Cic. *ad Brut.* 1,15,12: *qui quidem pulcherrime uiceramus, nisi Lepidus perdere omnia et perire ipse cum suis concupiuisset*
'and a handsome victory was ours, had not Lepidus insisted on undoing everything and undoing himself with his own associates'

b. Cic. *Att.* 15,26,4: *quod paene fecit nisi tua malitia adfuisset*[34]
'which he very nearly did but for your cunning on my side'

c. Cic. *leg.* 1,52: *quin labebar longius, nisi me retinuissem*
'indeed, if I had not forced myself to stop, I would have been led on still further'

(66) a. Cic. *off.* 2,78: *deinde aequitatem quae tollitur omnis si habere suum cuique non licet*
'and second, they do away with equity, which is utterly subverted if the rights of property are not respected'

b. **deinde aequitatem quae tollitur omnis nisi suum cuique habere licet*

1.5.4. Other negative conditional conjunctions: ni, si minus, sin

In contexts like (67), where an action is prevented from being actualized, *ni* can be found in place of *nisi*, along with *paene*. *Ni* is not a contracted form of *nisi* but the negative form *nē* plus the reinforcing element *i* (*ne-i* > *nī*). According to Ernout & Thomas (1951: 324), it derived its conditional value from ancient uses where it was opposed to *si*, as in (68). Traina and Bertotti

34. As shown in Bertocchi (1996), *paene* is sensitive to the semantic properties of the verbal phrase it accompanies. When modified by *paene*, activities and achievements can only be interpreted as designating a non-effectuated action, as in (65)b. Conversely, when it accompanies an accomplishment, it specifies the degree to which the action has been effectuated: Cic. *ac.* 2,10: *etsi … id quod quaerebatur, paene explicatum est.* It seems then that the construction with *paene … nisi* is more likely when constituted by activities and achievements. As to tense, in Classical Latin the perfect is largely if not exclusively the tense used with *paene.* Examples in other past tenses in both the indicative and the subjunctive mood are attested in post-Classical Latin (cf. Val. Max. 2,7,4 and Amm. 16,2,10). Besides *paene, prope* too means 'almost', but in Classical Latin, when it is found with a perfect tense, it is used only to mitigate an expression (cf. Kühner & Stegmann 1962: 172).

(1985: 441) emphasize that it passed from simple negation to the conditional sense via paratactic protases, such as *quod ni ita esset* (‘were it not so’). In Plautus’s time it was already used hypotactically; in pre-classical prose it was ignored, while later it was used by Cicero, albeit mostly in fixed formulas (such as *ni ita esset*). The most common uses were betting formulas, threats, or after *mirum est* (69). For metrical reasons *ni* was preferred by Lucretius and Vergil, and it was also used by poets of the post-classical period, when it was ignored by colloquial Latin.

(67) a. Plaut. *Persa* 594–595: *paene in foueam decidi, / ni hic adesses*
‘I almost fell into a pit, (and would have) if you hadn’t been here’
b. Liv. 2,10,2: *pons sublicius iter paene hostibus dedit, ni unus uir fuisset, Horatius Cocles*
‘the bridge of piles almost afforded an entrance to the enemy, had it not been for one man, Horatius Cocles’

(68) *XII tab*. 1,1: *si in ius uocat, ito; ni it, antestamino*[35]
‘if plaintiff summons defendant to court, he shall go. If he does not go, plaintiff shall call witness thereto’

(69) a. Plaut. *Persa* 186: *da hercle pignus, ni omnia memini et scio*
‘by Hercules, just you bet me if I don’t remember and do know it all’
b. Plaut. *Amph.* 440: *uapulabis, ni hinc abis*
‘you either pack, or take a thrashing’
c. Plaut. *Amph.* 319: *mirum, ni hic me quasi murenam exossare cogitat*
‘sure enough he’s reckoning on boning me like a lamprey’

Si minus, where *minus* is equivalent to a negation, is still rare in Early Latin but frequent in Classical Latin and is generally used after a conditional clause to oppose another of negative sense (70). More frequently, and especially in Cicero’s letters, the verb depending on *si minus* is elliptical (71). Frequently

35. The Law of the Twelve Tables offers evidence only of *ni,* not of *nisi* or *si non*. Because of its origin, *ni* corresponds to *si non* and can never be used with the exceptive sense of *nisi*.

in such instances *si minus* has a concessive sense or, more precisely, a concessive conditional sense, as shown by (72a). A concessive conditional is also expressed by *si minus* occurring in clauses of the same form as the correlation *si non … at* (*tamen*). In any case, it is the occurrence of *tamen* that indicates the concessive meaning (72). In the meaning 'if not', *sin minus*, *sin aliter*, and *sin secus* can also be found. Like *si minus* in (72a), *sin secus*, *sin aliter*, and *sin minus* (which is evidenced also in late authors such as the writers of the *Historia Augusta*) can also cover the sense of a whole omitted clause (73). *Sin* shares with *si minus* the property of introducing a second conditional clause opposed to the first. What distinguishes *si minus* from *sin* is the type of contrastive relation between the two conditional clauses. While with *si minus* there is a simple relation of negation, with *sin* the relation is of contrariness. This is evidenced by the high frequency of examples where the two opposite conditional clauses contain pairs of antonyms (74).

(70) a. Caes. *Gall.* 2,9,4–5: *ut, si possent, castellum … expugnarent pontemque interscinderent, si minus potuissent, agros Remorum popularentur*
'intending, if they could, to storm the fort and break down the bridge; or, if they could not, to lay waste the lands of the Remi'

b. Cic. *Tusc.* 1,26: *expone igitur … si potes, animos remanere post mortem, tum, si minus id obtinebis … docebis carere omni malo mortem*
'show clearly, then, if you can, that souls survive after death, and next, if you fail to establish this, you are to prove that death is free from any devil'

(71) Cic. *Att.* 5,18,2: *si fuerit occasio, manu, si minus, locis nos defendemus*
'should occasion arise, I should defend myself by force, but otherwise I shall depend on my position'

(72) a. Cic. *Att.* 5,4,2: *igitur senatus consultum si erit factum, scribes ad me; si minus, rem tamen conficies*
'so if a decree should be passed, please write to me; but if not, try to carry the matter through'

b. Cic. *Phil.* 2,78: *ut cognosceret te si minus fortem, at tamen strenuum*
'so that he might recognize that, if you were weak in courage, you were at least strong in energy'

(73) a. Plaut. *Cas.* 376–377: *postremo* ⟨*si*⟩ *illuc quod uolumus eueniet, gaudebimus; / sin secus, patiemur animis aequis*
'and then if the result satisfies us, we'll rejoice; if it doesn't, we'll put up with it patiently'

b. Cic. *leg. agr.* 3,2: *ut eam, si, quae dixero, uobis probabo, perpetuo retineatis, sin aliter, hoc ipso in loco depositam atque abiectam relinquatis*
'on the condition that you keep it forever, if I prove to you what I am going to say; but if I do not, that you may leave it here on this very spot'

c. Hist. Aug. *Claud.* 14,12: *ligni cotidiani pondo mille, si est copia, sin minus, quantum fuerit et ubi fuerit*
'one thousand pounds of firewood each day, if there is an abundant supply, but if not, as much as there is and wherever it is'

(74) a. Plaut. *Stich.* 521–522: *si res firma, item firmi amici sunt: sin res laxe labat, / itidem amici conlabascunt*
'if he is in a sound financial state, his friends are sound; but once that state begins wavering wildly, his friends co-waver likewise'

b. Cato *agr.* 6,2: *qui ager frigidior et macrior erit, ibi oleam Licinianam seri oportet. Sin in loco crasso aut calido seueris …*
'you should plant the Licinian olive in colder and thinner soil. But if you plant it in heavy or warm soil … '

c. Sall. *Iug.* 10,6: *equidem ego uobis regnum trado firmum, si boni eritis, sin mali, inbecillum*
'I deliver to you a realm that is strong if you prove virtuous, but weak if you do ill'

d. Cic. *Verr.* II 2,142: *si condemnatus eris … sin absolutus eris*
'if you are found guilty … if, on the contrary, you are acquitted'

e. Cic. *Catil.* 1,18: *si est uerus, ne opprimar, sin falsus, ut tandem aliquando timere desinam*
'if it is well founded, that I may not be overwhelmed; if it is false, that now at last I may cease to fear'

1.6. Speech act conditions

There is another type of conditional clause where *nisi* (but not *si non*) is frequently found. This type, well evidenced in Classical and post-Classical Latin, is illustrated in (75). Declerck and Reed (2001: 357) call this type "hedging-P conditional" and specify that it is used as a hedge toning down the speaker's responsibility with respect to the assertion made in the apodosis (76). We prefer to include this type within the more general class of "speech act" conditions that we presented in Section 1. Such conditions, even if they cover a large and varied map of cases, all concern the appropriateness and legitimacy of asserting the apodosis. Speech act conditions are also called "metalinguistic", since they pose conditions not on the truth, but on what is said.[36] Examples of some of the different kinds are given in (77). In (a) and (b) explicit hearers are called into play, while reference is made to a single term in (c) and to a whole clause in (d).[37] Syntactically, what characterizes speech act conditions is that they are in a loose cohesion relation with the main clause.

(75) a. Cic. *Att.* 4,19,1: *sed, nisi fallor, citius te quam scribis uidebo*
'but, unless I am mistaken, I shall see you earlier than you say'
b. Sen. *epist.* 14,3: *quorum tria, nisi fallor, genera sunt*
'if I am not mistaken, there are three main classes of these'
c. Hist. Aug. *Maximin.* 29,4: *oratorem potentissimum ... et, nisi fallor, in rebus bellicis ... fortem futurum*
'a very powerful speaker and, if I am not mistaken, a man who would prove himself gallant on the field'

(76) *{If I am not / unless I am} mistaken, Paris is the capital of France*

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36. Cf. Horn (1989). Van der Auwera (1986: 199) defines sentences such as *open the window, if I may ask you to* as "*if p, then q* speech acts that are not about any conditional relation between *p* and *q*, but represent *p* as a condition for a speech act about *q*".
37. Cf. Pinkster (1995), who calls such examples "pseudo-conditionals". On speech act conditionals in Latin see also van de Griend (1989).

(77) a. Cic. *de orat.* 1,119: *ac si quaeritis, plane quid sentiam enuntiabo*
'and now, if you would seek to know it, I will say in simple language what I think'
b. Liv. 3,71,3: *si licet, inquit, consules, de re publica dicere, errare ego populum in hac causa non patiar*
'if I am permitted, consuls, to speak concerning the nation's interests, I will not allow the people to go wrong in this matter'
c. Cic. *Mur.* 80: *ciues, inquam, si eos hoc nomine appellari fas est*
'citizens, I say, if it is right to call them by that name'
d. Ov. *met.* 5,416–417: *quodsi conponere magnis / parua mihi fas est, et me dilexit Anapis*
'if it is proper for me to compare small things with great, I also have been wooed by Anapis'

Some expressions of politeness, which are used to relate the actualization of a desire to the hearer's responsibility, are clauses of the speech act type introduced by *si*. The most common form is *sis*, contracted form of *si uis*, which was frequent especially in Early Latin to mitigate an imperative form (see (78a)) and which probably disappeared from the spoken language soon after Cicero because of homonymy with a form of the verb *esse*.[38] It was replaced by *si uis* (78b), which was used in emphatic contexts in Early Latin, as in (78c).

(78) a. Plaut. *Bacch.* 857: *iube sis me exsolui cito*
'kindly have me let go, and quickly'
b. Apul. *apol.* 52,2: *atqui contende, si uis, furorem tuum cum Thalli furore*
'and yet, if you like, compare your frenzy with that of Tallus'
c. Plaut. *Aul.* 451: *etiam ⟨iam⟩ intro duce, si uis, uel gregem uenalium*
'go on ⟨already⟩, take them inside, if you like, the whole corruptible herd'

38. Cf. Hofmann (1985: 288–289), who emphasizes that in Plautus's time the form *sis* was still felt as *si uis*: proof is given by the analogical formation *sultis* (= *si uultis*) and by the occurrence of infinitival forms as in Plaut. *Asin.* 309: *sis amanti subuenire*.

1.7. Complex conditional connectives

Si and *nisi* are often used in combination with particles to give rise to complex conditional connectives.[39] We have already seen the exceptive use of *nisi* expressed by *nisi uero* and *nisi forte*. With *si*, the most common complex conditional connectives are *si modo* and *si quidem*. We will also take *si tamen* into consideration, which is frequent in post-Classical, but not in Classical, Latin.

1.7.1. Speech act conditions introduced by si modo

Si modo clauses[40] occur in two main types: various uses of speech act *si modo* conditionals, and those where *si modo* more properly specifies a condition for the truth of the apodosis. Examples of the former are given in (79). (79a) seems to be a genuine case of speech act conditional. (79b) illustrates the primary use for illocutionary *si modo* conditionals: it still says something about the attitude of the speaker, but this attitude places the truth content of the main clause in a more relative perspective. This type does not qualify assertions, questions, or commands, but rather those aspects of illocutionary acts which involve the speaker's beliefs.

(79) a. Cic. *Att*. 4,8,1: *uerum statim fac ut sciam, si modo tibi est commodum*
'but let me know at once, if you possibly can'
b. Cic. *Brut*. 184: *nam quid in dicendo rectum sit aut prauum ego iudicabo, si modo is sum qui id possim aut sciam iudicare*
'what is right or wrong in a man's speaking I shall be able to judge, if only I have the ability and knowledge to judge'

Si modo clauses typically appear in the final or rheme position of a conditional sentence (80). The usual, linear or logical, order of conditionals 'if *p*, then *q*' appears to be inverted so that the usual logical order, and in most cases also the structural order with *si modo*, is rather '*q*, *si modo p*'. In this way, *si*

39. On complex conditional connectives in Spanish, see Montolio (2000).
40. On *si modo*, see Bertocchi (2001a).

modo represents an *a posteriori* specification of the content of the apodosis and it follows as an afterthought or is used parenthetically. Also, it can have an echoic character, since part of the prior utterance in the context can be repeated for the purpose of expressing an attitude toward it (81). Speech-act *si modo* clauses usually have a volitional or desiderative value. As Nutting notes (1925: 33), postposing the condition seems to favor emphasis on this coloring of the clause, which in some cases tends to break away from the connection with the main clause to reach the status of an independent expression of wish (82).

(80) Cic. *Att.* 4,16,2: *Varro, de quo ad me scribis, includetur in aliquem locum, si modo erit locus*
'Varro, about whom you write to me, will be included somewhere if only there is a place'

(81) Cic. *dom.* 118: *adfuit is, si modo adfuit, quem tu impulisti, soror rogauit, mater coegit*
'and his presence, if he was present at all, was due to your insistence, your sister's prayers, your mother's compulsion'

(82) Ov. *epist.* 16,297–298: *nunc ea peccemus, quae corriget hora iugalis, / si modo promisit non mihi uana Venus*
'let our sin now be one the hour of marriage will correct – if only what Venus promised me is not in vain'

1.7.2. Si modo *as a true condition*

In its metalinguistic use, the position of the *si modo* clause is either parenthetical or postposed, while in its true conditional use there are also instances, even if only a few, of anteposition (83). The desiderative character does not characterize speech act conditions alone, but also true conditions, which represent a real antecedent with respect to the truthfulness or realization of the consequent. Such volitional character is manifested, for example, in (84). In (84), in the relation that *si modo* establishes between two propositions, its function is not only to present what is most desirable ("general agreement"), but also to restrict in some way the content of the apodosis: a general agreement is the condition in order for things to go easily. Such a restrictive con-

dition is similar to that expressed by *dum*, *dummodo*, *modo* 'provided that', 'on condition that' (85).

(83) Cic. *Verr.* II 4,28: *si modo te posses dicere emisse, facile cui uelles tuam causam et factum probares*
'if only you could state that you bought them, you would easily have justified yourself and your behavior in anyone's eyes'

(84) Caes. *Gall.* 5,31,2: *facilem esse rem, seu maneant seu proficiscantur, si modo unum omnes sentiant ac probent*
'there was no difficulty, whether they stayed or marched, if only all shared and approved one plan'

(85) a. Acc. *trag.* 203–204: *oderint, / dum metuant*
' let them hate, so but they fear'
b. Cic. *Mil.* 12: *appelletur ita sane, dummodo ea nos utamur pro salute bonorum*
'let it by all means be so described, granted that I employ it for the welfare of patriots'
c. Sen. *dial.* 3,42,2: *poterimus autem, adnitamur modo*
'we can do it, if only we shall make the effort'

1.7.3. Si tamen

The restrictive conditional value of *dum*, *dummodo*, *modo* exemplified in (85) can be expressed in Late Latin by *si tamen*. This complex conditional connective is not attested in Early Latin and is not common in Classical Latin, while it is more frequent in post-Classical Latin. According to Schmalz (1909), its properties are the same as those of *si*, *si modo*, and *si quidem*.[41] Instead of them it is preferred in poetry for metrical reasons (86). In later periods *si tamen* replaces *si modo*, which is much less used than it is in Classical Latin, and *si quidem*, which is specialized in a causal sense. Some instances of *si*

41. Schmalz (1909: 333–334) bases his position on the comparison between (i) Cic. *Att.* 14,5,2: *sed uides magistratus, si quidem illi magistratus* and (ii) Cic. *de orat.* 2,157: *in hac arte, si modo est haec ars*. He considers *si modo* and *si quidem* to be equivalent. Although some examples are equal, we argue for the necessity of a distinction, as we show later on.

modo with the same sense as the complex connective *si tamen* in (86) are still found, yet they are extremely rare (87). In Bertocchi and Maraldi (2003), we make some remarks on Schmalz's position. In particular we are convinced of the necessity of distinguishing various values of *si tamen* and also of the necessity of making a distinction between *si modo* and *si quidem* even if some instances are equivalent. Considering *si tamen*, we have examined the examples of this particle in *Itinerarium Egeriae* (88). The use of *si tamen* is restrictive in both (88a) and (88b),[42] but the two conditional clauses are of different types: (88a) is a speech act condition while (88b) is a true condition, whose restrictive sense can be translated by 'on condition that'. (88c) is also of this kind, but here the occurrence of the negative item *nulla* in the phrase *nulla necessitas* has a reversing effect, constituting not a condition for, but an exception to what is asserted in the apodosis. The apodosis, in fact, establishes the duty of taking part in solemn occasions as a rule of general validity, while the protasis admits that cases of necessity can be considered exceptions to such an overriding principle. It can then be interpreted as an exceptive clause, similar to the cases introduced in Classical Latin by *nisi*, *nisi forte*, *nisi vero* ('unless').[43] Such forms are not attested in *Itinerarium Egeriae*, while most examples of *nisi* occur in a double negation of the type *non … nisi, nihil aliud nisi, numquam … nisi*, resulting not in an exceptive, but in an exclusive interpretation.[44] The exceptive value which, in our opinion, characterizes *si tamen* in (88c) may be found expressed by *excepto si*, as in (88d).[45]

42. See E. Löfstedt (1962). Löfstedt classifies the uses of *tamen* in *Itinerarium Egeriae* according to three senses: adversative, restrictive, and a weakened use, close to a linking particle, with a function similar to that of *autem*. Examples of the weakened use are common in Late Latin (especially in Ammianus and the *Historia Augusta*). The weakening of *tamen* is not without effect on *si tamen*: for example, there are three examples of *si tamen* in Vegetius and all clearly correspond to *si autem*. Cf. Veg. *mulom.* 2,14,4 *quae si euenerint, supra scripta ratione curantur. Si tamen aegritudo ulterius etiam post medicamenta procedet, uicinae urendae sunt partes.*

43. Significantly, the exceptive sense is expressed in post-Classical Latin by *nisi tamen*.

44. See, for example, *Itin. Eger.* 19,7: *ciuitas aliam aquam penitus non habet nunc nisi eam, quae de palatio exit* 'the only water supply which the city has inside its walls at present is this one which comes from the palace'.

45. There are also two exceptive examples introduced by *tantum quod*: *Itin. Eger.* 31,1; 44,2.

(86) Ov. *met.* 10,322–323: *scelerique resistite nostro, / si tamen hoc scelus est*
'fight off my crime, if it is indeed a crime'

(87) Flor. *epit.* 4,8,3: *eo denique discriminum uentum est ut foedus et pax cum hoste – si modo hostis Pompei filius – tamen feriretur*
'at last the danger became so great that a treaty of peace was concluded with the enemy – if a son of Pompey can be called an enemy'

(88) a. *Itin. Eger*. 13,1: *desiderium imponendi mihi laboris, ut etiam usque ad illa loca accederem, si tamen labor dici potest, ubi homo desiderium suum compleri uidet*
'(they) made me eager to take the trouble to make a further journey to visit these places – if one can really speak of trouble when one sees one's wishes fulfilled'

b. *Itin. Eger*. 10,8: *si uultis uidere aquam, . . . potestis uidere; si tamen uolueritis laborem uobis imponere, ut de uia camsemus, forsitan miliario sexto*
'if you would like to see the water, you can if you have the energy to turn off the road at about the sixth milestone'

c. *Itin. Eger*. 49,2: *putat se maximum peccatum incurrisse qui in hisdem diebus tantae sollennitati inter non fuerit, si tamen nulla necessitas contraria fuerit, quae hominem a bono proposito retinet*
'people regard it as a grave sin to miss taking part in this solemn feast, unless anyone had been prevented from coming by an emergency'

d. *Itin. Eger.* 27,5: *consuetudo est . . . quarta feria et sexta feria ad nona in Syon procedi, quoniam in istis locis, excepto si martirorum dies euenerit . . . a cathecumenis ieiunatur*
'they regularly assemble on Sion at three o'clock on Wednesdays and Fridays, since in these places there is fasting even for catechumens, unless they coincide with a martyrs' day'

The sense of the restrictive condition in (88b) is worth comparing with the ways these senses find expression in Classical Latin. There, restrictive conditional clauses are introduced by *modo*, *dummodo*, *dum*, or *si modo*. In

Itinerarium Egeriae, *dummodo* and *si modo* are not found. *Modo* has an exclusive temporal use, with three cases meaning *nunc* and one case meaning *mox*. Of the five occurrences of *dum*, four have a temporal sense, and one has a causal interpretation.

On the equivalence of *si modo*, *si quidem*, and *si tamen* suggested by Schmalz (1909), we suggest that they are similar when they occur in speech act conditions. Within this framework, with *si modo* and *si tamen* the speaker indicates those aspects which he reasonably has doubts about or which he holds with a relatively low degree of certainty. As such, these kinds of *si modo* clauses express a negative orientation of the speaker's attitude and seem to convey an interpretation similar to rhetorical concessive clauses introduced by 'admittedly'. By this type of expression, the speaker apparently concedes something to the arguments of his real or fictive interlocutor, but at the same time he leads his own arguments toward an opposite conclusion. Compare *si tamen* in (88a) with *si modo* in (89). In (89) the argument concerns whether dialectic is an art or not, and the speaker seems to concede that in someone's opinion (Diogenes') it is so, but at the same time he suggests that it might not be so, and it is the latter that seems to be his own opinion. The negative orientation of the speaker's attitude together with the concessive sense are shared by *si tamen* in (88a). Here too the speaker concedes that in someone's opinion visiting the holy land is a *labor*, but her personal opinion turns out to be the opposite.

(89) Cic. *de orat.* 2,157: *in hac arte, si modo est haec ars, nullum est praeceptum, quo modo uerum inueniatur*
'this art, if indeed it be an art, contains no directions for discovering truth'

With respect to *si quidem,*[46] the examples where it functions as a speech act conditional generally express a positive orientation in the speaker's attitude, which explains also its development towards a causal sense, as we will see. Consider (90).

46. On *quidem*, see Solodow (1978).

(90) Cic. *leg.* 2,26: *adfert enim haec opinio religionem utilem ciuitatibus, siquidem et illud bene dictum est a Pythagora, doctissimo uiro*
'for this idea encourages a religious attitude that is useful to States, if there is truth in the saying of Pythagoras, a most learned man'

1.7.4. Si quidem

Originally, *si quidem* had the same reinforcing and also the same limiting sense as *quidem*, meaning 'if indeed', 'if only'; it tends to appear with the indicative (91). With this same sense it is used as an afterthought in rectifying reactions, often by a new speaker or with ironic nuances (92). It is not always easy to distinguish between the two original senses of *quidem,* the asseverative and the restrictive. For example, *si sapies quidem* in (93) can be interpreted as 'so you really have got sense', where *si* is equal to *sic* and *quidem* is asseverative. But if we already assign to *si* a conditional sense, then *quidem* has a restrictive interpretation: 'at least if you've got sense'.

(91) a. Plaut. *Amph.* 1005–1006: *iam ille hic deludetur probe, / siquidem uos uoltis auscultando operam dare*
'here and now he'll be finely fooled, if you'll only take the trouble to listen carefully'
b. Plaut. *Most.* 987: *si quidem istaec uera sunt*
'if indeed these things are true'

(92) a. Varro *rust.* 2,11,1: *quoniam promissa absoluimus, inquit, eamus. Si quidem, inquam, adieceritis de extraordinario pecudum fructu*
' "as we have completed what we promised," he said, "let us leave." "Yes," said I, "but not until you have added something about supplementary profit from the flock" '
b. Cic. *Mil.* 48: *nam occurrit illud: 'Igitur ne Clodius quidem de insidiis cogitauit, quoniam fuit in Albano mansurus. Si quidem exiturus ad caedem e uilla non fuisset'*
'we are met by the objection: "Neither could Clodius have had any idea of a plot, since he intended to remain at his Alban estate". Yes, that would have been the case, if he had not intended to leave the house to commit the murder'

(93) Plaut. *Trin.* 559: *meus quidem hercle numquam fiet.* :: *Si sapies quidem*
'it shall never belong to me, no indeed. :: No indeed, sir, if you've got sense'

The two senses still coexist in Classical Latin (94). (94b) clarifies how *si quidem* passed to a causal sense. Especially in the narration of historical facts, as to the truth of which there is certainty, the passage of *si quidem* from the sense 'if it is true' to 'if it is true (as it is true)', signals that the referred facts are presupposed as true. In this way, *si quidem* acquires a causal sense, precisely the sense of *quoniam* ('since'), by which the cause is given as known, as old information. Some examples from Plautus (95) further illustrate the passage from the conditional use to the causal one. As suggested by Solodow (1978: 129–130), the sense of the *si quidem* clause in (96a) is 'as surely as I'm alive' and once its content is taken to be true, it becomes a cause (as in (96b)). The causal examples of *si quidem*, however, are still rare in Plautus. This sense becomes usual and prevalent from Cicero onward, and in Pliny the Elder it is the only sense (96).[47] In Pliny, *si quidem* is sometimes used as an adverb with coordinating function, equivalent to *nam* or *enim* (97). This is the sense that *si quidem* has in Late Latin, when it loses its subordinating features (98).

(94) a. Cic. *Planc.* 21: *tui municipes sunt illi quidem splendidissimi homines, sed tamen pauci, siquidem cum Atinatibus conferantur*
'your fellow citizens, highly distinguished though they undoubtedly are, are a mere handful, at least if compared with those of Atina'
b. Cic. *Cato* 56: *in agris erant tum senatores … siquidem aranti L. Quinctio Cincinnato nuntiatum est eum dictatorem esse factum*
'in those days senators lived on farms – if the story is true that L. Q. Cincinnatus was at the plow when he was notified of his election to the dictatorship'

47. Cf. Solodow (1978: 130): "*Si quidem* is exclusively causal in Pliny the Elder, who uses the phrase often, and in Tacitus and Pliny the Younger, who do not; in Quintilian there is but one exception".

(95) a. Plaut. *Men.* 903: *quem ego hominem, si quidem uiuo, uita euoluam sua*
'sure as I'm alive, I'll detach that fellow from his life'
b. Plaut. *Cas.* 409: *patiundumst siquidem … mea uxor imperium exhibet*
'surely we must submit – my wife is the head of the household'

(96) a. Cic. *parad.* 20: *peccauit uero nihilo minus, siquidem est peccare tamquam transire lineas*
'but it has transgressed nonetheless, since to transgress is to cross over the lines'
b. Plin. *nat.* 37,186: *siquidem a membris corporis habent nomina*
'for there are (stones) named after parts of the body'

(97) Plin. *nat.* 11,119: *gignit aliqua et contrarium naturae elementum. Siquidem in Cypri aerariis fornacibus et medio igni maioris muscae magnitudinis uolat pinnatum quadrupes*
'some creatures are generated also by the opposite natural element. Thus in the copper foundries of Cyprus even in the middle of the fire there flies a creature with wings and four legs the size of a large fly'

(98) a. Symm. *epist.* 3,6,1: *siquidem malis omnibus finis de tempore uenit*
'actually, every evil finds an end as time goes by'
b. Iord. *Rom.* 203: *si quidem ab Spania Hasdrubal frater Annibalis cum exercitu nouo, nouis uiribus, noua belli mole ueniebat*[48]
'Hasdrubal, Hannibal's brother, was indeed coming from Spain with a new army, new forces, a new war machine'

1.8. The relationship between condition and cause

The relationship between condition and cause is particularly strict in the case of *si quidem*. We now briefly analyze the reasons for this relation.

48. On *si quidem* in Iordanes, see Galdi (2007), who underlines how in this author the discourse function of *si quidem* is nearly the same as *nam* and in some cases as *autem*.

The interpretation of conditional markers like *si* frequently implies an epistemic notion of "uncertainty": it has been shown that the sense of "uncertainty" associated with conditional markers is not part of the coded meaning of these connectives, but that it is a pragmatic phenomenon (see Schwenter 1999). In a predictive context such as Cic. *div.* 2,41: *si di sunt, est diuinatio*, neither the content of the protasis nor that of the apodosis is entailed, since there may or may not be gods and there may or may not be divination. But there are also conditional clauses which present the condition as a matter of fact, as acquired information. Such clauses are in a strict relation with clauses introduced by *quoniam* 'since'.[49] Since *quoniam* always entails the content of the clause it introduces, it is a stronger subordinator than *si*, if we refer *si* and *quoniam* to the same scale – a scale of epistemic certainty with respect to the truth of the proposition. On this scale, *si* is the weak member, while *quoniam* is the strong one. *Si* conversationally implies that the speaker was not in an epistemic position to employ the stronger member of the pair, *quoniam*. In other words with *si*, the speaker is less committed to the truth of the proposition than he is with *quoniam.*

That "uncertainty" is part not of the semantics of *si* but of its pragmatics is demonstrated by the fact that it can be canceled. It can in fact be, and often is, removed by contextual factors, such as those indicating a factive context, including previously made assertions and general or shared knowledge. Several examples of conditional clauses having a factual interpretation are discussed by Nutting (1925). The factual character of a conditional clause is clear whenever a relation of cause and effect is explicitly given. For example, it can be made manifest by the occurrence of a correlative particle typically found in causal clauses (*ideo, idcirco*), as in (99). Here the negation does not have its scope on the protasis, which is presented as a matter of fact, but it denies the validity of the inference 'if *p*, then *q*'. Another type of factual conditional clause is that introduced by the question marker *cur* (100). In this case the clause introduced by *cur* does not throw doubts on the content of the

49. On this relation see Fugier (1989), who underlines the fact that *quoniam* does not express a cause but a precondition.

protasis (that the praetor's edict ends on the first day of January is given as a matter of fact), but presents a request for explanation or information.[50]

(99) Cic. *de orat.* 2,170: *non si Opimium defendisti, Carbo, idcirco te isti bonum ciuem putabunt*
'this tribunal, Carbo, is not going to deem you a patriotic citizen just because you defended Opimius'

(100) Cic. *Verr.* II 1,109: *si finem edicto praetoris adferunt Kalendae Ianuariae, cur non initium quoque edicti nascitur a Kalendis Ianuariis . . . ?*
'if the validity of a praetor's edict ends on the 1st of January, why does its validity not also begin from the 1st of January?'

Another case of factual protasis is represented by epistemic conditionals.

1.9. Epistemic conditionals

When previously established knowledge of the state of affairs in the protasis allows the transition to the conclusion in the apodosis, then we have an epistemic conditional (101). Epistemic conditionals are interpreted as causal: the knowledge of *p* is interpreted as causing or enabling the conclusion in *q* (cf. Sweetser 1990). For example, the same illustration is given by Cicero through a conditional clause and, a few pages later, through a *quoniam* clause (102). But the causal relation can also be seen in the reverse direction: the event or state of affairs described in *q* may be causally prior to that described in *p*. What distinguishes predictive from epistemic conditionals, in fact, is time reference: in predictive conditionals the time of the protasis is earlier than that of the apodosis, in epistemic conditionals the temporal reference of

50. This is an innocent request, but there are also cases of rejection of the protasis, a protasis whose truth the speaker is not committed to: Cic. *Verr.* II 3,202: *deinde cur in uno genere solo frumenti ista aestimatio constituatur, si est aequa et ferenda?* 'why is this commutation system of yours to be applied to grain of one description only, if it be a just and a tolerable system?' While the innocent reading is along the lines 'Please, explain how it is that *p* implies *q*', the protasis-rejecting reading evokes not just '*p* implies *q*' but rather '*q* implies not *p*' (cf. Kay 1991; Bertocchi 2001a).

the protasis is later than that of the apodosis. Dancygier (1998: 88) notes that the epistemic status may be revealed in the fact that these clauses are often equivalent to rephrasings with the epistemic modal 'must' (103). In Latin it is frequent to find verbal forms such as *oportet, necesse est, sequitur* (104).[51] Example (104a) is given by Cicero as an instance of *argumentatio probabilis*, where the conclusion is not necessarily derived, but is due to our knowledge of the world. *Oportebat* expresses in this case an epistemic modality of the inferential type, which identifies the evidence as based upon observation and reasoning.[52]

(101) *If they're not picking up their mail, they've gone on vacation*

(102) a. Cic. *inv.* 1,44: *si peperit, cum uiro concubuit*
'if she has borne a child, she has lain with a man'
b. Cic. *inv.* 1,74: *quoniam peperit, cum uiro concubuit*[53]
'since she has borne a child, she has lain with a man'

(103) *If Mary is late, she* must *have gone to the dentist*

(104) a. = (2b) Cic. *inv.* 1,47: *si multus erat in calceis puluis, ex itinere eum uenire oportebat*
'if there was a lot of dust on his shoes, he must have been on a journey'
b. Cic. *inv.* 1,84: *quoniam habes istum equum, aut emeris oportet aut hereditate possideas aut munere acceperis aut domi natus sit, aut, si eorum nihil est, subripueris necesse est*
'since you are in possession of that horse, you must have bought it, or inherited it, or received it as a gift, or it must have been foaled at your farm, or if none of these is true, you must have stolen it'

51. Cf. Nutting (1925: 53).
52. See Bertocchi and Orlandini (2002).
53. The epistemic condition in (102)a is an example of strict entailment, by which it is not possible that A and not B are true at the same time: Cicero gives it as an example of *argumentatio necessaria*.

c. Cic. *fat.* 28: *si haec enuntiatio: "Veniet in Tusculanum Hortensius" uera non est, sequitur, ut falsa sit*
'if the statement "Hortensius will come to his place at Tusculum" is not true, it follows that it is false'

2. Concessive clauses

2.1. Preliminary remarks

The decision to treat conditional clauses and concessive clauses in the same chapter was mainly motivated by logical-semantic reasons. Concessive relations have not yet received a proper formalization,[54] but they are normally characterized by comparison to causal and conditional relations. Consider, for example, (105). In (105a), a causal link[55] is asserted between John's knowledge of Italian and his living in Italy for a long time. Such an assertion entails the truth of both propositions expressed by the main and the subordinate clauses. In other words, both propositions must be true in order that the whole utterance can be true. Although the entailment is the same in (105b), the connection is of a very different kind: the presupposition[56] is conveyed that the

54. A proposal for formalization is found in König (1991a), who suggests that concessive relations are the dual counterpart of causal relations (König 1991a: 195–198). König uses this term to formally express the traditional intuition that concessive expressions are somehow the opposite of causal expressions. The semantic relation of duality is found whenever there is the possibility of having an external and an internal negation of a sentence: (*because p*) ¬ *q* is the dual of ¬ ((*because p*) *q*) that is equivalent to (*although p*) ¬ *q*. This could explain, among other things, why concessive and causal constructions entail both of their component clauses.
55. Cause, condition, and concession have long been known to have a special relationship with one another as adverbial relations of circumstance (see, e.g., Thompson and Longacre 1985; Kortmann 1997). The conceptual similarity among cause, condition, and concession is also reflected in the fact that languages may encode these relations in the same way. As far as Latin is concerned, the relationship of concessive clauses to conditional clauses is already noted by Nutting (1925) and C. Lehmann (1973), among others.
56. The presupposition of incompatibility or contrast which is implied in concessive sentences like (105b) can be also defined as a conventional implicature. This means that the effect of incompatibility or contrast is a part of the meaning of every concessive sentence of the same type as (105b).

two propositions are incompatible. The incompatibility derives from the common assumption that if someone has been living for a long time in a country, he normally knows its language. As suggested by König (1986, 1988), this constituent part of the meaning of (105b) can be captured by means of the formulation in (106); that is, by means of a conditional structure with the negation on the apodosis. According to (106), asserting a concessive sentence amounts to asserting two propositions p and q against the background assumption that the eventualities p' and q', of which p and q are an instance, do not normally go together.[57]

(105) a. *John knows Italian, because he has been living in Italy for ten years*

b. *Even though John has been living in Italy for ten years, he does not know Italian*

(106) If p', then normally $\neg q'$

The connection between conditionals and concessives has led some linguists (see König 1986, König and van der Auwera 1988, Harris 1988) to identify an intermediate class of adverbial clauses between conditionals and concessives, the so-called "concessive conditionals".[58] Unlike simple conditionals, concessive conditionals relate a set of antecedents/protases to a consequent/apodosis. This series of antecedents can be specified in different ways, which gives rise to the three subtypes of concessive conditionals illustrated

57. Conditionals and concessives have the relation "condition-consequence" in common. However, while in a conditional sentence this relation is asserted, in a concessive sentence this relation is only presupposed and concerns the usual relation of incompatibility existing between the class of events p and the class of events q. What is asserted is, instead, an exception to this general incompatibility: with respect to a specific event or object or person, the realization both of p and of q is asserted.

58. They are called "unconditionals" by Zaefferer (1991) or "costrutti a-condizionali" by Mazzoleni (1991). A similar distinction between concessives and concessive conditionals in French is suggested by Martin (1982, 1983). He distinguishes "la concessive simple" (*Bien qu'il soit malade, Pierre travaille beaucoup*) from "la concessive hypothétique" (*Même s'il est malade, Pierre travaillera beaucoup*) and "la concessive extensionelle or scalaire" (*Où qu'il aille, Pierre se trouve des amis*; *Si malade soit-il, Pierre travaille beaucoup*).

in (107).[59] In universal concessive conditionals, the series of antecedents is specified by a free relative with a free choice reading ('whatever'); in alternative concessive conditionals it is specified by a disjunction of a conditional and its negation ('whether … or not'); in scalar concessive conditionals it is specified by a focus particle or scalar expression like 'even' that modifies a conditional. The basic meaning they all share is that the consequent holds, independently of the sense of the antecedent condition. In this respect, concessive conditionals differ from simple conditionals: while concessive conditionals entail their consequent, irrespective of the antecedent conditions, conditionals entail neither the antecedent nor the consequent. Despite their similarities with conditionals, concessive conditionals share an important feature with concessives, the incompatibility between two propositions: among the protases there is at least one case (which one is left open or indefinite) that is in conflict with the apodosis.

(107) a. Universal concessive conditionals: *whatever I say, he doesn't listen to me*
b. Alternative concessive conditionals: *whether he is right or not, we must support him*
c. Scalar concessive conditionals: *even if I try very hard, I won't manage*

Comparing (108) with (109), it is easy to understand why examples like (108) can constitute an intermediate case between a conditional and a concessive. In the first place, unlike the situation with conditionals, in concessive conditionals the main clause is asserted. In addition, it is implied that the main assertion holds even in the least probable case for it to hold, and precisely this opposition of two eventualities is what links a conditional concessive to a concessive sentence.[60]

(108) *Even if he does not marry, his parents will give him the house*

(109) *Although he will not marry, his parents will give him the house*

59. The terms used in the classification are from Haspelmath and König (1998). Haspelmath (1997) uses slightly different terms: parametric, alternative, and polar concessive conditionals, respectively.
60. Cf. Quer (1998: 225–226).

Beyond the relationship with conditionals, linguistic analyses also establish a link between concessive and adversative sentences, a link mainly based on the notion of contrast.[61] So a sentence like (110) is conceived as corresponding roughly to the coordinate structure with *but* in (111). Examples (110) and (111) are considered syntactically distinct but semantically equivalent. The supposed affinity between concessive and adversative relations finds support in typological considerations. Broad cross-linguistic investigation has demonstrated that universally, concessives are derived structures;[62] they develop relatively late in the history of a language and are also acquired much later than other types of adverbial clauses. While not all languages have connective elements like *although* or *even though* which are specialized for the introduction of concessives, all languages have a form equivalent to the adversative conjunction *but*.[63] When concessive and adversative relations are considered from a pragmatic or discourse perspective, their affinity proves to be even more evident. Some functional analyses tend to establish that, notwithstanding their different syntactic structure, concessivity and adversativity are two types of a single argumentative strategy[64] that can constitute a unique functional category at the discourse level.[65]

(110) *Although he was very sick, he went to work*

(111) *He was very sick, but he went to work*

Latin is very rich in proper concessive markers and other structures able to express concession. This richness offers a very important field of investigation both for testing the affinity between concessivity and other semantic domains and for observing the historical development of concessive connectives. It

61. Cf. Rudolph (1996: 3): "Adversativity and concessivity are bound together by the common feature of contrast, although they are quite different in their expressions". As shown by Günthner (2000), contrast is involved in the discourse-marker use of German *obwohl*, a canonical concessive conjunction.
62. The derived aspect receives confirmation in morphology: specific markers introducing concessive clauses are universally complex forms, diachronically derived from the union of various morphemes. Cf. König (1988).
63. See König (1985a, 1985b).
64. See, among others, Anscombre and Ducrot (1983), Leclère (1979), Moeschler and Spengler (1981, 1982).
65. So, for example, Mazzoleni (1990).

confirms that concessive connectives are typically composite in nature and that their use varies in the different periods of a language. In our analysis of the various Latin structures related to the notion of concessivity, we use a classification based on syntactic and semantic-pragmatic criteria. We distinguish between subordinate and paratactic concessive structures. To this distinction we add a further one which takes the notion of factuality into account. On the basis of the notion of factuality, we distinguish true concessives from concessive conditionals (in their three types: universal, alternative, and scalar conditionals). Factuality is also involved in the characterization of paratactic or correlative structures that are used to express concession for argumentative purposes.

2.2. True concessives

True concessives are defined as concessive sentences where both clauses *p* and *q* are entailed; that is, the speaker is committed to the truth of both propositions. Generally, in these constructions the concessive meaning is grammaticalized in a firm and conventional way and is not due to contextual factors[66] but is associated to certain connective elements that are specialized for the introduction of this meaning. Latin constructions that suit this definition are mainly subordinate clauses introduced by *quamquam*, *etsi*, *tametsi*, and *tamenetsi* that normally take the indicative mood.[67] Even though these markers introduce the same semantic type as concessive clauses, they differ as re-

66. For this reason we do not include *cum* plus subjunctive in this class. It is analyzed later among other types of subordinate clauses which can obtain concessive meaning only contextually, like ablative absolutes, participles in predicative function, *si*-clauses, and relative clauses.

67. The commitment to the truth of both *p* and *q* is an aspect implicitly acknowledged already in traditional descriptions of Latin concession. According to Cevolani (1960), *quamquam*, *etsi*, and *tametsi* plus indicative and *cum* plus subjunctive introduce real concessives while *quamuis*, *etiamsi*, and *ut* plus subjunctive introduce hypothetical concessives. Traina (1961) distinguishes objective concessives (clauses introduced by *quamquam*, *etsi*, *tametsi*, *cum*) from subjective concessives (clauses introduced by *quamuis*, *etiamsi*, *ut*, *licet*). While objective concessives look at the conceded fact in itself, subjective concessives look at the attitude of the speaker who concedes it.

gards their etymological origin and/or their frequency in the various authors and in the different periods of Latin.

2.2.1. Quamquam

Quamquam is a complex form derived from the reduplication of *quam*, an original feminine accusative of the interrogative-relative pronoun, later crystallized as an adverb. The etymological meaning of *quamquam* would be 'how much precisely', indicating that there is a strict correspondence between reality and thought as regards a quantity or degree.[68] In (112), *quamquam irata* refers to a degree of anger presented as effective, as actual. A possible replacement of *quamquam* by *quamuis* would leave the degree of anger not only indefinite but also virtual.[69]

(112) Plaut. *Merc.* 800–801: *quamquam tu irata's mihi, / iubeas, si sapias, haec ⟨hinc⟩ intro auferrier*
'although you are angry at me, if you were smart you would have this stuff brought inside here'

The development of a concessive meaning from an original sense of quantity[70] is an aspect that *quamquam* shares with concessive connectives of other languages (e.g., Fr. *pourtant*). It mirrors a tendency which seems to be fairly common in languages: to derive a concessive expression from an

68. This is the characterization given by Ferrarino (1942: 185–189). In assigning a "precisative" original meaning to *quamquam* and, more generally, to any reduplicated form (e.g., *quisquis*, *utut*, *quotquot*), Ferrarino disagrees with the characterization we usually find in Latin grammars, where an original generalizing sense is assigned (cf. "à quelque degré (que)" in Ernout & Thomas (1951: 351–352); "wie sehr auch immer" in Hofmann & Szantyr (1972: 602); "how ever much", "to whatever degree" in Woodcock (1959: 201). Ferrarino's characterization seems to be more able to capture the distinction between *quamquam* and *quamuis.*
69. Cf. Maraldi (2002).
70. The original notion of quantity or degree could explain the possibility of *quamquam* occurring with adjectives, adverbs, or participles in analogy with *quamuis*, a possibility that is rare in Classical Latin but that becomes frequent in post-classical and late authors: Tac. *ann.* 1,29,1: *Drusus orto die et uocata contione, quamquam rudis dicendi, nobilitate ingenita incusat priora, probat praesentia*; Plin. *epist.* 1,12,7: *quin etiam uxor, quamquam omnis secreti capacissima, digrediebatur.*

expression of quantity which is argumentationally considered a nonsufficient condition.[71] The acquisition of the concessive meaning ought to have taken place in an age of Latin preceding the first written texts, since *quamquam* appears among the first markers of factual concession. Perhaps the original "precisative" meaning may have influenced the choice of the mood, which was the indicative from the beginning (113a–b). In Early and Classical Latin the indicative remains the usual mood,[72] but since the post-classical period it competes with the subjunctive, which definitely predominates in Late Latin (113c–f).[73] More frequently, a concessive *quamquam*-clause precedes its main clause, where a correlative (mostly *tamen*)[74] occurs. The correlation underlines the strict syntactic and semantic relation between the two clauses, which can be considered by the same standard as the protasis and the apodosis of a conditional period. That the two clauses constitute a single utterance is also confirmed by instances like (113d), where the *quamquam*-clause is preceded by a noun phrase having its syntactic function within the main clause. These aspects – the presence of a correlative and the word order – are relevant for distinguishing *quamquam* as a marker of a proper concessive from *quamquam* with the rectifying function that is analyzed in Section 2.3 below.

71. Cf. Létoublon (1985).
72. From Martín Puente's (1998b) computation of *quamquam* in Cicero and Sallust, it turns out that the subjunctive is used 10 % of the time and is primarily due to syntactic reasons such as "indirect style" and "modal attraction". See, for example, Sall. *Iug.* 83,1: *legatos ad Bocchum mittit postulatum, ne sine causa hostis populo Romano fieret: habere tum magnam copiam societatis amicitiaeque coniungundae, quae potior bello esset, et, quamquam opibus suis confideret, tamen non debere incerta pro certis mutare*; Cic. *epist.* 5,20,2: *itaque huic loco primum respondeo me, quamquam iustis de causis rationes referre properarim, tamen te exspectaturum fuisse nisi in prouincia relictas rationes pro* ⟨*re*⟩*latis haberem.* As suggested by Hofmann & Szantyr (1972: 602), semantically motivated use is exceptional, as in Sall. *Iug.* 3,2: *nam ui quidem regere patriam aut parentis, quamquam et possis et delicta corrigas, tamen inportunum est*, where the subjunctive expresses a sense of possibility.
73. The tendency to use the subjunctive of subordination without modal sense is observed in Jerome and Sidonius. Other late authors (see Ammianus Marcellinus, Symmachus, Augustine, and Ausonius) continue using the indicative and the subjunctive fairly in accordance with the classical norm. This choice seems to be mainly stylistic, as suggested by Spevak (2001).
74. For a characterization of the various uses of *tamen*, see Orlandini (1999b).

(113) a. Titin. *com*. 157: *quamquam estis nihili, tam ecastor simul uobis consului*
'although you are worth nothing, yet I have taken care of you together, by Castor'

b. Pacuv. *trag*. 304: *quamquam aetas senet, satis habeam uirium ut te ara arceam!*
'although my years are old, may I have strength enough to bar you from the altar!'

c. Cic. *rep.* 2,48: *qui (tyrannus) quamquam figura est hominis, morum tamen inmanitate uastissimas uincit beluas*
'though he (a tyrant) bears a human form, yet he surpasses the most monstrous of the wild beasts in the cruelty of his nature'

d. Suet. *Iul.* 3,1: *et Lepidi quidem societate, quamquam magnis condicionibus inuitaretur, abstinuit . . .*
'but he did not make common cause with Lepidus, although he was offered highly favorable terms . . . '

e. Tac. *ann.* 1,3,5: *Germanicum . . . adscirique per adoptionem a Tiberio iussit, quamquam esset in domo Tiberii filius iuuenis*
'and it was Germanicus that ordered Tiberius to adopt, even though Tiberius had already an adult son under his roof'

f. Hier. *epist.* 15,2,1: *quamquam igitur tui me terreat magnitudo, tamen iuuitat humanitas*
'although your greatness frightens me, yet your humanity attracts me'

The employment of *quamquam* as a concessive marker is preserved throughout all of Latinity, even though it retreats in favor of *quamuis* and *licet*.

2.2.2. Etsi

Etsi is the result of the juxtaposition of *et*, in its additive adverbial sense (equivalent to *etiam*),[75] with the conditional conjunction *si*. Due to its com-

75. On *et*=*etiam*, see Krebs & Schmalz (1905: I 520).

pound nature, *etsi* is found with two different senses, corresponding to 'even if' and 'though', as in (114).

(114) a. Plaut. *Capt*. 742–743: *etsi peruiuo usque ad summam aetatem, tamen / breue spatiumst perferundi quae minitas mihi*
'even if I live on and on to the very limits of human life, it's still only for a short time I shall have to endure what you threaten me with'

b. Caes. *Gall.* 5,28,1: *etsi ab hoste ea dicebantur, tamen non neglegenda existimabant*
'though the statement was made by an enemy, they nevertheless considered that it must not be disregarded'

In (114a), *etsi* is still near to its original meaning: the two components *et* and *si* each contribute to the whole meaning of the conjunction. Added to *si*, *et* has the same function of the focus particle *even* in *even if*, of *même* in *même si*, or of *anche* in *anche se*.[76] The presence of *et* implies a paradigm of conditions, within which the focalized condition is the least probable. If the consequent is also entailed under this condition, one can deduce that the consequent will be entailed under any other condition with a higher degree of probability. The *etsi*-clause behaves in this case as a concessive conditional clause. On the contrary, in example (114b) the *etsi*-clause is semantically interpreted as an 'ineffective cause' that does not prevent the accomplishment of the state of affairs expressed within the main clause. In this case, the predication contained in the *etsi*-clause is not hypothetical but factual. The shift from a concessive conditional to a proper concessive meaning seems to be accomplished already in Classical Latin, if one considers that Caesar prefers by far *etsi* to *quamquam* (115).[77] But examples such as (115b) occur already in Plautus, where the *etsi*-clause has to be interpreted as a proper concessive and not as a concessive conditional.[78]

76. See the analysis suggested by König (1985a, 1985b, 1986, 1988). The addition of focus particles to hypothetical or temporal conjunctions is one of the means by which languages derive concessive markers. For other types of derivation see in particular König (1988).
77. Cf. Batstone (1990) for the stylistic effects of this choice.
78. Cf. Maraldi (1999a).

(115) a. Caes. *civ.* 1,64,3: *Caesar etsi timebat tantae magnitudini fluminis exercitum obicere conandum tamen atque experiendum iudicat*
'Caesar, though he feared exposing his army to such strength of the river, nevertheless decides that he must attempt the experiment'
b. Plaut. *Mil.* 532: *etsi east, non est ea*
'she is, and yet she isn't' (= 'although she is, she isn't')
c. Ter. *Hec.* 788: *eo, etsi scio pol eis fore meum conspectum inuisum hodie*
'I go then, even though I know that they will hate the sight of me today'
d. Sall. *Iug.* 10,7: *nam in omni certamine qui opulentior est, etiamsi accipit iniuriam, tamen, quia plus potest, facere uidetur*
'for in all strife the stronger, even though he suffer wrong, is looked upon as the aggressor because of his superior power'

Sceledrus's contradictory assertion in (115b) derives from the contrast between the reality and the fiction that he is obliged to believe: although he has seen the true Philocomasium, he is however forced to believe that he saw not her but her sister.[79]

The dual interpretation of an *etsi*-clause between concessive conditional and proper concessive makes it difficult to state a clear-cut class for this item.[80] The classification suggested here is in agreement with the analysis

79. Cf. Plaut. *Mil.* 407: *non uid⟨i⟩ eam, etsi uidi.* In Mellet (2002: 255), this example is cited to support the characterization suggested for the use of *quamquam* and *etsi* in Cicero. According to Mellet, they would differ as regards the speaker's commitment: *quamquam* signals this commitment; on the contrary, *etsi* signals "une altérité énonciative" or "deuxième voix". Beyond the Ciceronian texts, this "dédoublement énonciatif" finds a valid confirmation just in the Plautine example, where *etsi* seems to "renforcer subtilement l'altérité qui est au coeur de la situation dramatique".

80. The dual interpretation of *etsi* recalls the double interpretation of It. *anche se*. A sentence like (i) *anche se piove, esco* can have two readings: if *piove* is a deictic present tense, the sentence is interpreted as a factual concessive; on the contrary, if *piove* has a generic sense, the sentence is interpreted as a concessive conditional. If (i) is contextualized, its ambiguity disappears, as in (ii): *Non uscire ora! Sta piovendo.* :: *Anche se piove, esco*, where it can have only a factual concessive interpretation.

by Martín Puente (2002), while it contrasts with Spevak's (2001: 27; 2002: 349; 2005: 107 n. 91). On the basis of data collected from Cicero, Caesar, and Sallust, Martín Puente (2002: 206) concludes that *etsi* and *tametsi* function as formal variants of a single conjunction with no difference in meaning or syntactic distribution,[81] the choice of the one or the other being dependent on the taste of each author. On the contrary, Spevak's opinion is that while *tametsi* can be listed among the "subordonnants dotés d'une valeur purement concessive" (such as *quamquam*, *quamuis*, *licet*), *etsi* has to be considered a "subordonnant susceptible d'introduire une concessive hypothétique", by the same standard as *etiamsi*. The main reason underlying Spevak's classification is that, unlike *quamquam*, *quamuis*, and *licet*, *etsi* and *etiamsi* do not complete the process of grammaticalization to become concessive markers since their component elements (*et si* and *etiam si*) are never fully desemanticized. As a consequence, their semantic value depends on the context and their specificity as concessive conditional markers is only partial (cf. Spevak 2001: 28). Even if Spevak's reservations on grammaticalization may be partially correct,[82] nonetheless the data from Latin authors show that *etsi* and *etiamsi* behave differently, *etsi* showing a very high tendency to introduce factual concessives, and *etiamsi* introducing conditional concessives in most cases. This difference is clear when both introduce clauses with the indicative mood,[83] as in (115c–d). While in (115c) the content of the *etsi*-clause is asserted as a real fact (it is entailed) by the speaker himself, in (115d) the content of the *etiamsi*-clause is hypothetical, virtual, in spite of the presence of the indicative. This depends on the generic, nonspecific interpretation of the content of the free relative clause (*qui opulentior est*), also underlined by the universal distributive quantifying expression *in omni certamine*.

81. "Funcionan como variantes formales de una misma conjunction sin diferencias de valor o distribución sintáctica".

82. On grammaticalization see C. Lehmann (1982), Fruyt (this volume). Grammaticalization is usually taken to be the process by which an element shifts from a lexical to a grammatical value. In any case, *etsi* exhibits a higher degree of grammaticalization than *etiamsi*. Cf. Martín Puente (1998a), where only *etiam si* is not considered an authentic conjunction, while *etsi* and *tametsi* are said to introduce factual concessives like *quamquam*.

83. The indicative mood is very frequent with *etsi*, while the subjunctive is subject to the same rules as when used with *quamquam* (indirect style, modal attraction), and more rarely it has a modal (possibility) nuance. The contrary holds for *etiamsi*.

The necessity of classifying *etsi* and *etiamsi* in two distinct types is supported by another relevant aspect: *etsi* but not *etiamsi* can introduce rectifying concessives. This property makes *etsi* very close to *quamquam*, *tametsi*, and *tamenetsi*, which have similar properties.

2.2.3. Tametsi

While *etsi* is the concessive marker preferred by Caesar, in Sallust it does not occur. Instead of *etsi*, *tametsi*[84] is used, beside *quamquam* (116). That *etsi* and *tametsi* share the same type of concessive function is supported by an example like (117), where the two are coordinate.

(116) a. Sall. *Iug.* 25,11: *ac tametsi senati uerbis graues minae nuntiabantur … multa tamen oratione consumpta legati frustra discessere*
'but although terrible threats were made in the name of the senate, the envoys went away unsuccessful after wasting a deal of oratory'

b. Sall. *Catil.* 31,4: *at Catilinae crudelis animus eadem illa mouebat, tametsi praesidia parabantur et ipse … interrogatus erat …*
'but Catiline's pitiless spirit persisted in the same attempts, although defences were preparing, and he himself had been arraigned …'[85]

84. *Tametsi* is obtained by the addition of *tam* to *etsi*. According to the grammarian Festus, in Archaic Latin, *tam* could be used with the same adversative sense of *tamen*, a sense that in the classical period only *tamen* kept. The fragment by Titinius in (113a) is one of the four examples cited by Festus to support this equivalence. Cf. Létoublon (1985).

85. As shown by these examples, the order of the *tametsi*-clause with respect to the main clause is irrelevant to its functioning as a proper concessive clause.

(117) Caes. *civ.* 1,26,2: *ac tametsi magnopere admirabatur Magium … ad se non remitti atque ea res saepe temptata etsi impetus eius consiliaque tardabat tamen omnibus rebus in eo perseuerandum putabat*
'and though he could not but wonder that Magius was not yet sent back with an answer, and even if his repeated trials retarded his designs and undertaking, he nevertheless still persevered in these peaceable resolutions'

2.2.4. Tamenetsi

In Latin grammars, *tamenetsi* is mentioned as a formal variant of *etsi* and *tametsi.*[86] No explicit reference is made to the low frequency of this conjunction, but the quoted examples indirectly confirm the rarity of its use. The exact reckoning of the occurrences of *tamenetsi* is not easy, since the two components, *tamen* and *etsi*, are not always conjoint and lexicalized as a concessive marker. This leads to some ambiguity of interpretation, mainly in passages that favor a double reading, such as (118). While Leeman, Pinkster, and Rabbie (1989: 166) treat it as a case of *tamenetsi* for *tametsi*, Martín Puente (2002) analyses it as a case where the two component elements do not constitute a single word, but function separately, *tamen* referring to the preceding utterance and *etsi* introducing the concessive clause by itself. This difficulty of interpretation is shared by other Ciceronian passages commonly quoted as instances of *tamenetsi* (see, e.g., Cic. *epist.* 4,15,2; 13,71,1), and it remains throughout Latinity, since the complex *tamen* + *etsi* does not lexicalize as *etsi* and *tametsi* do.[87] According to Martín Puente (2002), the only true occurrence of *tamenetsi* in Cicero is the passage where a verse by Ennius is cited (119). From the investigation of the data given in the *Bibliotheca Teubneriana Latina*, it turns out that at least one other occurrence may be listed as a true instance of *tamenetsi* used as a concessive marker. If the reading with

86. Cf. Kühner & Stegmann (1962, 2: 441); Hofmann & Szantyr (1972: 672), Ernout & Thomas (1951: 298).
87. Compare, for example, Ambr. *in psalm.* 38,15,1: *ergo uir sapiens ipse medicus est sibi; tamen, etsi medicus est, uulnus suum urit* with Ambr. *Iac.* 1,8,34: *tamen etsi amittat liberos, non ideo minus beatus, qui non ideo minus perfectus.*

tamenetsi is right,[88] this example would be an instance of *tamenetsi* introducing a concessive clause with a rectifying function (120). Clearer instances of *tamenetsi* are found in Late Latin (121). The presence of the correlative *tamen* in the main clause guarantees that *tamenetsi* is used here as a true concessive marker.

(118) Cic. *de orat.* 2,210: *eumque si quam gloriam peperisse uideatur, tamenetsi ea non sit iniqua merces periculi, tamen ea non delectari . . .*
'and that, as for any renown he himself may seem to have won, though no unfair recompense for his risk, he nevertheless finds no pleasure therein . . . '

(119) Cic. *de orat.* 3,168: *at Romanus homo, tamenetsi res bene gesta est, / corde suo trepidat* (cf. Enn. *ann.* 547)
'but though the day is won, the Roman's heart trembles'

(120) Cic. *Quinct*. 69: *aude id dicere non palam sed eis ipsis quos aduocasti – tamenetsi nolo eam rem commemorando renouare cuius omnino rei memoriam omnem tolli funditus ac deleri arbitror oportere*
'dare to say so: not openly, but merely to those whom you have summoned to your assistance. However, I do not wish to recall the memory of an event, which in my opinion ought to be entirely forgotten and blotted out'

(121) a. Lact. *inst*. 3,12,22: *qui tamenetsi nescierunt inmortalitatis uiam, res eos tamen non fefellit*
'even if they did not know the way to immortality, they were however not ignorant of this thing'

b. Salu. *eccl.* 3,4: *quod tamenetsi etiam ad aliud referri potest, tamen loco quoque et causae huic non insalubriter coaptatur*
'although this can also be related to other things, it can well be applied to the present matter advantageously'

88. *Tamenetsi* is given in the text of the Teubner edition. The Loeb and "Les Belles Lettres" texts have *tametsi.*

2.3. The rectifying function of *quamquam*, *etsi*, and *tametsi*

Like the concessive markers of other languages,[89] *quamquam*, *etsi*, and *tametsi*[90] can mark rectifying clauses, which are analyzed as a subtype of concessive clauses in recent linguistic studies.[91] Whereas a true concessive clause constitutes a single utterance with its main clause and stresses the content of the main clause, a rectifying concessive constitutes a second utterance whose function, generally speaking, is to weaken the import of a preceding assertion. A rectifying concessive always follows the main clause and is linked to that main clause only loosely. It functions at the textual level,[92] permitting the author (speaker) to add an observation or a correction, a sort of 'afterthought'. In Latin, rectifying or textual concessives correspond to the constructions that traditional grammars call *quamquam (etsi) correctivum* and describe as a type of adversative coordination.[93] As expected, corrective *quamquam*, *etsi*,

89. See English (*al*)*though*, German *obwohl*, Spanish *aunque* (cf. Flamenco García 1999). In French the special marker of this function is *encore que* (cf. Morel 1983).
90. No example of *etiamsi* is found with this function. The cases of *quamuis* are very few. See, for example: Prop. 2,7,1–4: *Gauisa es[t] certe sublatam, Cynthia, legem, / qua quondam edicta flemus uterque diu, / ni nos diuideret: quamuis diducere amantis / non queat inuitos Iuppiter ipse duos* (quoted by Hofmann & Szantyr 1972: 604); Hist. Aug. *Heliog.* 18,1: *hic ultimus Antoninorum fuit (quamuis cognomine postea Gordianos multi Antoninos putent, qui Antonii dicti sunt, non Antonini) uita, moribus, improbitate ita odibilis, ut eius senatus et nomen eraserit*.
91. Cf. Martin (1982), König (1994), Crevels (1998, 2000).
92. Crevels (1998, 2000) has shown that concessive clauses are expressed on four different semantic levels: the content level, the epistemic level, the illocutionary or speech-act level, and the textual level. Concessive clauses pertaining to the fourth level have to do with the organization of the discourse and may apply to text units which contain more than one sentence. On the basis of data from a wide range of languages, she has also shown that concessive clauses get more and more paratactic-like as they pertain to a higher level.
93. *Quamquam correctivum* is not at all a marginal construction. Martín Puente (2001) asserts that in Cicero, 347 out of a total of 602 occurrences are cases of *quamquam correctivum*. Cf. Maraldi (2002) on *etsi correctivum*. Mikkola (1957: 26, 109–110; 1964: 83, 127) distinguishes a *quamquam inversum* (with the function of restricting a preceding assertion) and a *quamquam correctivum* (by which the speaker corrects himself). We agree with Martín Puente (1998b) that they are two cases of the same corrective *quamquam*, but used in different discourse contexts.

tametsi invariably follow their main predications, after a strong pause, and can also occur as incidental clauses, placed just after the part of the main predication that the speaker wants to modify (122). *Quamquam* (*etsi*; *tametsi*) introducing a rectifying concessive is not a subordinating conjunction syntactically, but it functions as a coordinating connective. The syntactic independence is strongly supported by the fact that in *oratio obliqua* this type of clause has the verb in the infinitival form, as in (123).[94] The coordinating sense is even evident in the cases where *quamquam (etsi; tametsi) correctivum* stretches over a whole series of preceding utterances, signaling an unexpected turn in the discourse context, often under the form of a rhetorical question, as in (124). In (124a), *quamquam ille quidem* ('though he indeed') introduces an assertion, "in contrast with the different language which has just been used by Laelius as to the eternity of friendship" (Stock [1893] 1963: 35 n. a). In (124b), the negatively oriented question restricts the validity of the conclusion that might be drawn from the preceding words, where Cicero admits that Atticus is doing his best to relieve Cicero's troubles and suggests how he can improve this effort. The positive conclusion (Atticus can do very much) is contradicted by the negative rhetorical question, also emphasized by the explicit negative answer. In (124c), the rhetorical question implicitly denies that the rashness existed for which Cicero is punished.

(122) a. Cic. *Phil.* 3,3: *firmissimum exercitum ex inuicto genere ueteranorum militum comparauit patrimoniumque suum effudit: quamquam non sum usus eo uerbo quo debui; non enim effudit: in rei publicae salute conlocauit*
'he collected a very stout army of the invincible class of veterans, and lavished his patrimony – though I have not used the proper phrase; for he did not lavish it, he invested it in the salvation of the State'

94. In languages like Dutch and German, where main and subordinate clauses are distinguished on the basis of word order, textual concessive clauses typically exhibit main clause word order. Cf. König and van der Auwera (1988).

b. Cic. *Phil*. 8,22: *animum nobis adferre legati debuerunt: timorem attulerunt – quamquam mihi quidem nullum – quamuis de illo ad quem missi sunt bene existiment*
'the envoys should have brought us confidence: they have brought fear – though to me none – however good is the opinion they express of the man to whom they were sent'

c. Ter. *Hec*. 623–625: *tibi quoque edepol sum iratus . . . , / . . . nam hercle abs te est factum turpiter; / etsi tibi causa est de hac re: mater te impulit*
'by Pollux, I am angry with you too, by Hercules, your behavior has been disgraceful. You, though, have some excuse: your mother urged you on'

d. Cic. *Verr*. II 4,94: *ibi est ex aere simulacrum ipsius Herculis, quo non facile dixerim quicquam me uidisse pulchrius – tametsi non tam multum in istis rebus intellego quam multa uidi*
'in this temple there is an image in bronze of Hercules himself: I do not know that I have ever seen a lovelier work of art – not that my understanding of such things is equal to the number of them I have seen'

(123) Tac. *ann*. 12,65,2: *at nouercae insidiis domum omnem conuelli maiore flagitio, quam si impudicitiam prioris coniugis reticuisset. Quamquam ne impudicitiam quidem nunc abesse Pallante adultero* . . .
'but stepmother's plot aimed at overthrowing the whole imperial house – a darker scandal than would have resulted if he had concealed the infidelities of the prior wife. Though, even now, infidelity was not far to seek, when she had committed adultery with Pallas . . . '

(124) a. Cic. *Lael*. 33: *audite uero, optumi uiri, ea quae saepissime inter me et Scipionem de amicitia disserebantur: quamquam ille quidem nihil difficilius esse dicebat quam amicitiam usque ad extremum uitae diem permanere*
'then listen, most worthy gentlemen, to the points very frequently mentioned between Scipio and me in our discussion of friendship. Now he, indeed, used to say that nothing was harder than for a friendship to continue to the very end of life'

b. Cic. *Att.* 11,7,3: *quamquam quid tu in eo potes? nihil scilicet*
'yet what can you do in that matter? Nothing, of course'

c. Cic. *Att.* 9,10,2: *do, do poenas temeritatis meae; etsi quae fuit illa temeritas?*
'sorely am I punished for my rashness; yet what rashness was there?'

The syntactic independence of textual concessives is inversely proportional to their textual cohesion; this is mainly obtained by means of pronominal anaphora (cf. *in eo* in (124b)) or lexical repetitions (cf. *impudicitiam*; *amicitiam, temeritas*), that assure discourse coherence.

2.4. Concessive conditionals

Unlike simple conditionals, concessive conditionals relate a set of antecedents/protases to a consequent/apodosis. The peculiar semantic feature of concessive conditionals is that in contrast both to conditionals, which entail neither their antecedents nor their consequents, and to true concessives, which entail both of their component clauses, these sentences do not entail their antecedent but do entail their consequent. Latin subordinators especially involved in concessive conditionals are *quamuis* and *etiamsi.*[95]

2.4.1. Quamuis

According to Bennett (1910: 270), in Early Latin concessive sentences introduced by *quamuis* are to be considered an example of parataxis, which supports the hypothesis favoring the paratactic origin of this construction.

95. In our analysis, *quamlibet* is left out. This marker shows a formation (*quam* + *libet*) and a behavior similar to that of *quamuis*, but it has a more restricted use, mainly poetic and post-classical. See, for example: Ov. *am.* 1,7,66: *quamlibet infirmas adiuuat ira manus*; Quint. *inst.* 1,12,5: *quamlibet multa egerimus, quodam tamen modo recentes sumus ad id, quod incipimus.* Its use, even if rare, continues up to Late Latin: *Itin. Eger.* 31,4: *ubi cum uentum fuerit, quamlibet sero sit, tamen fit lucernare.* For other occurrences in late authors, see Spevak (2001).

The problem is to make clear the conditions under which the transition from its independent use to its subordinating function is realized.

Quamuis first occurs as an adverb, and its shape relates to the indefinite pronoun *quiuis* as, correspondingly, *quamquam* relates *quisquis*. In accordance with its meaning 'as much as you want', it focalizes an adjective or an adverb whose degree on a scale is left undetermined and submitted to the subjective estimation of the interlocutor (125). Out of about fifteen examples from Plautus,[96] only three have concessive force. The concessive sense is realized when, to the clause with *quamuis*, which leaves the degree of the adjective open, another clause is opposed which leads to a conclusion opposite to that which the clause with *quamuis* would suggest. Consider for example (126).[97] The two clauses are not necessarily linked by a relation of syntactic subordination; instead, though independent, they are linked by a semantic relation of contrast. Many instances of *quamuis* can be conceived both as cases of adversative parataxis and of concessive subordination: as suggested by Schaffner (1954: 9), it is precisely this possibility that makes the conditions clear under which the change from parataxis to hypotaxis could take place. In Cicero, examples are still found that can be interpreted in both ways (127).[98] There is, however, a criterion that permits us to decide when a clause introduced by *quamuis* is definitely hypotactic: it is the criterion of gradability.[99]

(125) a. Plaut. *Epid.* 16: *audacter quamuis dicito*
'you may say that as boldly as you please'
b. Plaut. *Trin.* 797: *quamuis sermones possunt longi texier*
'chattering can be spun out as long as you please'

(126) Plaut. *Bacch.* 82: *locus hic apud nos, quamuis subito uenias, semper liber est*

96. The number varies in relation to the dubious *lectio* of Plaut. *Cas.* 901 and *Mil.* 615: *quamuis* is not accepted by either Leo or Lindsay.

97. The other concessive examples are Plaut. *Merc.* 687: *quamueis insipiens poterat persentiscere* and Plaut. *Trin.* 554 : *quamuis malam rem quaeras, illic reperias*.

98. See Schaffner (1954: 10). For an interpretation of *sint* in (127) as an independent concessive subjunctive, see Serra Zanetti (1957: 24).

99. Cf. Bertocchi (2002).

‘this place at my house is your very own always, no matter how unexpectedly you come’

(127) Cic. *Att.* 9,13,6: *sed sint quamuis boni, non sunt meliores quam nos*
‘they may be loyal, but they are not more loyal than I’

The employment of a non-gradable element in relation to *quamuis* indicates the change of this element from adverb to subordinator, as for example (128).

(128) Cic. *Verr.* II 5,168: *ut qui neque notus esset … quamuis ciuis Romanus esset, in crucem tolleretur*
‘that a man who was not known to yourself might be put to death on the cross, even if he were a Roman citizen’

According to Schaffner (1954), the process develops in the time between Plautus and Cicero and can be considered completed in the classical period.

As seen in (107), in the space between conditionality and concessivity Haspelmath and König (1998) have identified three constructions which they consider variants of the same category: universal concessive conditionals, alternative concessive conditionals, and scalar concessive conditionals. *Quamuis* seems to cover all three variants. The original, and also typical, employment of *quamuis* corresponds to the “universal” variant: *quamuis* modifies a gradable element whose degree on the scale is left indefinite by *uis*, the second person of the verb of volition *uelle* (129).

(129) Cic. *fin.* 5,84: *paupertas si malum est, mendicus beatus esse nemo potest, quamuis sit sapiens*
‘if poverty is an evil, no beggar can be happy, be he as wise as you like’

Quam + *uis* indicate a free choice in the selection of a degree for *sapiens*, *uis* functioning as an indifference marker which, when combined with the expression of quantity *quam*, gives the indifference of degree as a result. Whatever the degree of wisdom, it is irrelevant for the consequent.[100] In contrast

100. A similar formation is shared by the indefinite free-choice pronoun *quiuis*. On the close semantic relationship between free-choice indefinite pronouns and indefiniteness markers that combine an interrogative pronoun with some form of the verb ‘want’, see Haspel-

to *quamquam,* which expresses factuality*, quamuis* has a character of possibility. This distinction is naturally reflected by the different use of mood: the indicative mood usually co-occurs with *quamquam*, while the subjunctive co-occurs with *quamuis.*

An example such as (130), with a dimensional predicate like *longus*,[101] can highlight the distinction and possible intersections between the class of "universal" and the class of "alternative" concessive conditionals (130). Example (130) may allow two different readings. In one reading, *longus* refers to the whole scale; in the other, it refers only to the upper side of the scale. The fact that the range of possible degrees of *longus* in (130) covers the whole scale, the extreme opposite values (long, short) included, favors an interpretation of the *quamuis* clause as an alternative subtype, corresponding to 'whether long or short' or 'whether long or not'.

(130) Cic. *Cato* 4: *praeterita enim aetas quamuis longa cum effluxisset, nulla consolatio permulcere posset stultam senectutem*
'in fact, no lapse of time, however long, once it had slipped away, could solace or soothe a foolish old age'

In the second reading, *longus* means 'more than *y* long', where *y* represents some standard of length. In this case, the scale evoked by *quamuis* cannot also include the negative side, of which 'short' is the extreme value. This second interpretation seems to be shared by the predicates of the evaluative type, as for example (131). The universal subtype is represented mostly by

math (1997). Haiman (1974: 346) had already noted that in some languages a particle corresponding to English '-ever' is cognate with a verb of choice or volition.

101. As proposed by Cruse (1976, 1986) and Bierwisch (1989), among others, gradable predicates can be dimensional and evaluative. This distinction is based on the consideration that antonym pairs are used to indicate polar values on a scale, in relation to only one dimension in the case of dimensional predicates, or to two dimensions in the case of evaluative predicates. For example, 'length' is the single dimension graded by the scale of which 'long/short' are the opposite poles, but 'beautiful/ugly' relate to two different dimensions, 'beauty' and 'ugliness' respectively, which define two different scales with opposite orientation, one semantically positive ('beauty'), the other semantically negative ('ugliness'). So, if X is defined as 'short', it is equal to saying that some degree of length is assigned to X, while if X is defined as 'ugly' it cannot mean that X has some degree of beauty. Cf. Bertocchi (2002).

quamuis, while the alternative subtype is limited to dimensional predicates. What is common to both is what is conveyed, that is, implicit reference to an extreme degree. In the alternative type two opposite poles are suggested; in the universal type the speaker leaves the range of degrees open but with an orientation toward the *maximum* degree.[102]

(131) Cic. *Phil.* 2,116: *res bello gesserat, quamuis rei publicae calamitosas, at tamen magnas*
'he had done things in war, however calamitous to the state, yet at least great'

A maximum degree is implicated also by *quamuis*-clauses not containing a gradable element. In this case, the extreme degree does not concern a single constituent, but the whole clause. The maximum degree *quamuis* evokes is an extreme condition, semantically similar to the scalar subtype (cf. (107c)), introduced by *etiamsi*, which is taken to specify an extreme value on a scale of possible values. When *quamuis* focalizes the whole clause, it shares with the clauses introduced by *etiamsi* the properties both of presenting the propositional content as virtual and of implicating that it is the less probable.

102. That *quamuis* is fit for orienting toward the maximum degree is confirmed also by those examples where the indefinite value is excluded: on the one hand, instances where it can be considered a simple intensifier like *ualde*: Plaut. *Men.* 318: *quamuis ridiculus est, ubi uxor non adest* 'he's ever so humorous – when his wife's not near'; on the other, instances where it modifies a superlative.

2.4.2. *Etiamsi (etiam si)*

The sense of *etiamsi*[103] is strictly dependent on the semantic value of its component elements: the conditional subordinator *si* and the inclusive focus particle *etiam*.[104] The function of *etiam* is to include the *si*-clause focalized within a set of other conditions (a scale of hypotheses) and to characterize it as the least favorable condition for the realization of the content of the apodosis.[105] The result of this operation is that the apodosis is entailed independently of the protasis, as shown by (132). In (132a), Cicero is committed to the truth of the apodosis (*scribam cottidie aliquid*), both in the more favorable condition (*si quid erit*) and in the less favorable (*si nihil erit*). In (132b), the concessive conditional is expressed as an incidental sentence; the protasis focalized by *etiam* has a counterfactual interpretation, as is suggested by the context (*quem*

103. The possibility of writing both *etiamsi* and *etiam si* is due to the fact that the combination of the two elements, *etiam* and *si*, does not always introduce a concessive conditional clause and cannot therefore be considered a lexicalized concessive conjunction. For example, in Cic. *Att.* 1,19,1: *non modo si mihi tantum esset oti quantum est tibi, uerum etiam si tam breuis epistulas uellem mittere quam tu soles, facile te superarem*, the second *si*-clause is conditional and constitutes the second member of the correlation *non modo … uerum etiam*. That in *etiam si* the two elements preserve some independence is also made evident by the possibility of finding occurrences of the type *si etiam* with an analogous concessive conditional sense like Cic. *Att.* 8,11,3: *cum praesertim non dubitaremus quin, si etiam tutum nobis iter fuisset, te tamen iam consequi non possemus* 'moreover, we were sure that, even if our path were clear, we could not overtake you'. In our description we adopt the written form *etiamsi*, but in the quotation of examples we keep the form that is found in the Teubner editions.

104. On focus particles see König (1991b). The inclusive sense of *etiam* is clear in examples such as Liv. 36,12,5: *metu coacti etiam qui dissentiebant ad regem conuenerunt*, where the addition of *etiam* signals that the referent of the relative clause is inserted in a set of other people, where it is the least expected. For an analysis of *etiam*, see Orlandini (1999a).

105. Not all the cases of *etiamsi*-clause have a concessive conditional interpretation. This is the normal interpretation when the realization of the apodosis is independent of the realization of the protasis. However, as shown by Martín Puente (1998a: 507–508), there are cases, like Cic. *S. Rosc.* 116: *socium cauere qui possumus? quem etiamsi metuimus, ius officii laedimus* 'but how can we take precautions against a partner, since even to feel uneasy about his conduct is a violation of the law of duty?', where the *etiamsi*-clause expresses the minimal necessary condition for the realization of the apodosis. In these cases no concessive nuance is in play.

ad modum scribes) and by the imperfect subjunctive. Even under this unreal hypothesis, the apodosis is asserted as true (*sciebam*).

(132) a. Cic. *ad Q. fr.* 2,10,2: *reliquis diebus si quid erit quod te scire opus sit, aut etiam si nihil erit, tamen scribam cottidie aliquid*
'during the days that remain, if anything occurs which it is necessary for you to know, or even if nothing occurs, I shall nevertheless write something to you every day'

b. Cic. *ad Q. fr.* 2,13,3: *tu, quem ad modum scribis (quod etiam si non scriberes facere te diligentissime tamen sciebam), facies scilicet ut mea mandata digeras, persequare, conficias*
'you will, of course, do as you write you will (and even if you did not put it down on paper, I am nonetheless assured that you are most conscientious in doing so), I mean that you will arrange, follow out, and execute my instructions'

The occurrences of *etiamsi* introducing a concessive conditional are few in Early Latin. It is mainly Cicero who enlarges its employment, taking advantage of all the various distinctions of mood and tense which are proper to the conditional system in order to obtain different hypothetical nuances, as shown by (133). Unlike *etsi*- and *tametsi*-clauses, *etiamsi*-clauses predominately occur in the subjunctive mood, as expected since they concern hypotheses,[106] and the occurrence of the indicative generally does not change their virtual sense. In (133c) the incidental sentence (*quod numquam faciam*) makes it explicit that Cicero is conceding something that he is not disposed to do, as a pure hypothesis. However, there are some cases where the indicative agrees with a different interpretation of the *etiamsi*-clause. Thus in (134). In both examples, the clauses introduced by *etiamsi* refer to real situations: Dolabella certainly gave his approval; Cicero had no official charge. A consequence of the factuality of the protasis is that the interpretation shifts from a concessive conditional to a proper concessive sense.[107] The possibility of having a true concessive interpretation becomes more frequent in the post-classical

106. See Martín Puente (1998a: 510) on the distribution of subjunctive and indicative in Cicero and Sallust.

107. It is a general property that concessive conditionals can have a factual character if their antecedents are not virtual. Cf. n. 80.

period, as appears from Petronius's usage (135). In particular, (135b), where the clause introduced by *etiamsi* has a rectifying function, shows that *etiamsi* has also acquired the possibility of introducing a concessive meaning and not only a concessive conditional meaning.

(133) a. Cic. *Verr.* I 18,56: *etiamsi spatium ad dicendum nostro commodo uacuosque dies habuissemus, tamen oratione longa nihil opus fuisse*
'even had we had days to spare and time to speak at leisure, there would still have been no need to speak at any great length'

b. Cic. *prov.* 1: *etiamsi minus utilis uobis sententia uideretur, ueniam tamen aliquam dolori meo tribueretis*
'even if my proposal should appear to you to be of little value, you would yet make some allowance for my resentment'

c. Cic. *div.* 2,131: *uide igitur, ne, etiamsi diuinationem tibi esse concessero, quod numquam faciam, neminem tamen diuinum reperire possimus*
'therefore, even if I granted your contention as to the existence of divination – and this I will never do – still, you must realize that it would be impossible for us to find a diviner'

(134) a. Cic. *Verr.* II 1,95: *quae omnia etiamsi uoluntate Dolabellae fiebant, per istum tamen omnia gerebantur*
'and though it all took place with Dolabella's approval, it was all carried out under his (Verres') personal direction'

b. Cic. *ad Q. fr.* 3,7,3: *nihil te intellegere uolueram domestici timoris sed de communi rei publicae statu, in quo etiam si nihil procuro, tamen nihil curare uix possum*
'I did not intend you to take me as implying any alarm concerning our domestic affairs, but only referring to the general political situation; and in that, though I have no official charge of anything, still I can scarcely have no charge at all upon me'

(135) a. Petron. 46,3: *ingeniosus est et bono filo, etiam si in aues morbosus est*
'he is clever, and comes of a good stock, even though he is too fond of birds'

b. Petron. 56,1–3: *quod … putamus secundum litteras difficillimum esse artificium? Ego puto medicum … : / medicus qui scit quid homunciones intra praecordia suam habeant, et quando febris ueniat, / etiamsi illos odi pessime*
'what do we think is the hardest profession after writing? I think a doctor's: the doctor's, because he knows what poor men have in their insides, and when a fever will come – though I detest them'

2.5. Contextual concessivity

Under the notion of *contextual concessivity* we collect various Latin constructions that can acquire a concessive or concessive conditional reading on the basis of the context of occurrence. In fact, the subordinators involved in these constructions are normally associated with other semantic relations, so that the concessive relation can be derived only contextually. This heterogeneous group includes different types of clauses, both finite and non-finite, as well as adjectives, adverbs, or prepositional phrases.[108] Very often the concessive sense, contextually determined, is strengthened by the presence of *tamen*. Among the finite clauses, a prominent position is held by clauses introduced by *si*, *cum*, *ut*, and by indefinite relative clauses.

2.5.1. Si-*clauses*

In a sentence such as (136), the concessive interpretation results from the fact that in the Plautine world to be white-haired, and to be quick-witted are two events normally seen as contradictory.[109]

108. A frequent case of non-finite clause is the ablative absolute as in Caes. *Gall.* 2,12,2: *paucis defendentibus, oppidum expugnare non potuit.* For other cases, see Martín Puente (2000).
109. Cf. Baratin (1981: 268).

(136) Plaut. *Mil.* 631–632: *si albicapillus hic uidetur, neutiquam ab ingenio⟨st⟩ / senex*
'his hair may be white, sir, but not a sign of age does he show in spirit'

While in (136) the protasis concerns an admission of fact and, as a consequence, the interpretation of the sentence is of a true concessive, in many other examples the protasis concerns a hypothetical concession. In this case the sentence obtains a scalar concessive conditional reading, as in (137), where the *si*-clauses formulate highly improbable, even counterfactual hypotheses, or express a condition quite irrelevant for the conclusion contained in the apodosis ('even if I veil my meaning you will understand it'), that is considered to be true in any case, as is also suggested by the choice of the indicative mood.[110]

(137) a. Plaut. *Bacch.* 128: *qui si decem habeas linguas, mutum esse addecet*
'you whom it befits to be mute, even if you had ten tongues'
b. Cic. *Att.* 2,19,5: *si obscure scribam, tu tamen intelleges*
'even if I veil my meaning you will manage to understand it'
c. Tac. *hist.* 4,15,8: *nec prouiderant impetum hostium milites, nec, si prouidissent, satis uirium ad arcendum erat*
'the Roman troops had not foreseen the assault, and even if they had, they did not have enough strength to ward off the enemy'

2.5.2. *The exclusive disjunction* siue … siue *'whether … or not'*

The use of alternative conditions has as a natural consequence the development of concessive force. In fact through the pairing of alternatives, with a conclusion that holds 'whether or not', the effect of the whole is that of a concessive period.[111] More properly, the whole sentence is interpreted as

110. Cf. Nutting (1925: 98).
111. Cf. Nutting (1925: 66). When, even if this is rare, the protases introduced by *siue … siue* do not have the same apodosis, no concessive conditional interpretation can result. See, for example: Cic. *Tusc.* 1,42: *ita, siue dissipantur, procul a terris id euenit, siue permanent et conseruant habitum suum, hoc etiam magis necesse est ferantur ad caelum.*

an alternative concessive conditional, where the alternatives occupy the extreme points of the relevant scale. Normally, the alternatives expressed are two, as in (138a–c). But there are examples where also the alternative hypothesis, which is in the middle between the two extreme points, is expressed (138d–e). In such sentences the indicative is generally used in the protasis, but examples with the subjunctive are not lacking, for particular reasons[112] such as modal attraction in (138e) or the potential sense of protases with a nonspecific subject, as in (138f).

(138) a. Plaut. *Trin.* 183–184: *si recte seu peruorse facta sunt, / ego me fecisse confiteor . . .* [113]
'whether I did rightly or wrongly, I admit doing it . . . '
b. Cic. *Att.* 12,12,2: *qua re siue habes quid siue nil habes, scribe tamen aliquid . . .*
'so whether you have any news or not, anyhow write something . . . '
c. Cic. *Tusc.* 1,76: *ueniet tempus, et quidem celeriter, siue retractabis, siue properabis*
'the time will come and that quickly, whether you shrink back or are in a hurry'
d. Sen. *dial.* 4,34,1: *ira abstinendum est, siue par est qui lacessendus est, siue superior, siue inferior*
'we must refrain from anger, whether he be an equal or a superior or an inferior who provokes its power'
e. Sen. *benef.* 4,8,3: *si, quod a Seneca accepisses, Annaeo te debere diceres uel Lucio, non creditorem mutares, sed nomen, quoniam, siue praenomen eius siue nomen dixisses siue cognomen, idem tamen ille esset*
'if, having received a gift from Seneca, you were to say that you were indebted to Annaeus or to Lucius, you would be changing,

112. Cf. Hofmann & Szantyr (1972: 670).
113. The form *si . . . siue* is used more in Early Latin. Cf. also Plaut. *Truc.* 832–833: *uerum qui i[a]mprobust + siquam si bibit / siue adeo caret temeto, tamen ab ingenio inprobust* 'a worthless man, however – call him drinker, yes, or abstainer – is worthless still by nature'.

not your creditor, but his name, for, whether you designated him by his first, his second, or his third name, he would nevertheless be the same person'

f. Cic. *de orat.* 2,241: *perspicitis genus hoc quam sit facetum, quam elegans, quam oratorium, siue habeas uere quod narrare possis … siue fingas*
you see plainly how graceful, choice, and well befitting an orator is a jest of this sort, whether you have some truth you can relate or whether you are only fabricating'

2.5.3. The type quisquis est *'whoever it may be'*

Besides *quamuis*, Latin expressions which may involve the universal subtype of concessive conditionals include some sentences with a nonspecific free relative clause.[114] The possibility of having a universal concessive conditional interpretation is limited to the cases where the indefinite relative clause is not a constituent of the main clause, but it modifies the main clause adverbially.[115] Clear instances are (139), where the reduplicated form of the indefinite relative pronoun does not have any syntactic function in the main clause,[116] but it introduces an unlimited number of possible alternatives, of which none can constitute an obstacle for the conclusion. In addition to reduplicated forms, nonspecific free relative clauses with the meaning of univer-

114. As regards this aspect, Latin is not different from other languages. According to Haspelmath and König (1998: 606–607), at least for the European languages, this generalization can be stated: whenever a language uses a special set of (*wh*-derived) relative pronouns in nonspecific free relative clauses, those pronouns are also used in universal concessive conditionals.

115. In verb-second languages like German, the fact that universal concessive conditionals do not fill a functional slot in the main clause has consequences for word order, as illustrated by comparing (i) with (ii): (i) *wo immer du hingehst bist du steuerpflichtig* 'wherever you go you are liable to taxation' (= free relative with the function of local adverbial within the main clause); (ii) *wo immer du hingehst, du bist (überall) steuerpflichtig* 'wherever you go, you are everywhere taxable' (= universal concessive conditional). Cf. König and van der Auwera (1988).

116. This aspect is evident if we compare (139b) with Petron. 76,8: *quicquid tangebam crescebat fauus* 'whatever I touched grew like a honeycomb', where *quicquid* is an argument of both predicates.

sal concessive conditionals can also be introduced by forms in *cumque*, as in (140).[117] Typical instances of universal concessive conditionals are expressions like *quisquis (quidquid) est*, *quicumque est*, as exemplified in (141). The fact that the choice of the identity of the person or thing in question is quite free and can range over a set of antecedents, without having any relevance for the conclusion, which is entailed in any case, determines the concessive conditional reading of these examples.

(139) a. Cic. *Phil.* 2,33: *non recuso, ago etiam gratias, quoquo modo facis*
'I do not decline; I even thank you, whatever be your motive'

b. Petron. 46,6: *quicquid dederis, contentus est*
'whatever you give him, he is quite pleased'

(140) Cic. *de orat.* 2,15: *quaecumque uos causa huc attulisset, laetarer, cum apud me uiderem homines mihi carissimos et amicissimos*
'whatever occasion had brought you here, I should be delighted to see at my home men who are among my dearest and best friends'

(141) a. Plaut. *Amph.* 1041: *numquam edepol me inultus istic ludificabit, quisquis est*
'By Pollux, that villain shall never make game of me and escape, whoever he is!'

b. Cic. *epist.* 10,31,3: *si id agitur ut rursus in potestate omnia unius sint, quicumque is est, ei me profiteor inimicum*
'if all things were to fall again into the power of just one person, I would declare myself his enemy, whoever he may be'

c. Verg. *Aen.* 2,49: *quidquid id est, timeo Danaos et dona ferentis*
'whatever that is, I fear the Greeks even if they are bringing gifts'

2.5.4. Cum-*clauses*

Sentences with *cum* plus subjunctive express a true concessive relation when the propositional content of the subordinate and of the main clause force the

117. Some problems concerning *quisquis* and *quicumque* and their relationship with concession are discussed by Maraldi (2000, 2002).

reading in such a direction, as in (142). In (142a) the concessive relation is built on the basis of the opinion systematically shared that normally if someone can be removed from prison, he does not refuse this opportunity. In (142b) the concessive interpretation arises from the unexpected consequence and is further marked by the presence of *tamen.*

(142) a. Cic. *Tusc*. 1,71: *cum facile posset educi e custodia noluit*
'though he could easily have been removed from prison, he refused'

b. Plin. *epist*. 4,23,1: *cognoui te … multum audire, multum lectitare, cumque plurimum scias, cottidie tamen aliquid addiscere*
'I have heard that you mix learned conferences with much reading, and although the fund of knowledge you already possess is immense, you are increasing it daily'

In traditional grammars this use is defined as *cum concessivum*, that is distinguished from the so-called *cum adversativum*, exemplified in (143). But the distinction between the two is not always clear-cut. Since both of them express a contrast between two events, it is possible that a passage may have a concessive or an adversative reading, as in (143b), where the meaning of the *cum*-clause may be equivalent to 'although he could be very rich' or to 'whereas he could be very rich'.[118] In this passage the difference between the two interpretations is very slight but in other contexts the two senses are not interchangeable.[119]

(143) a. Ov. *am.* 1,15,31–32: *cum silices … / depereant aeuo, carmina morte carent*
'though hard rocks perish with passing time, song is untouched by death'

118. Cf. Traina and Bertotti (1985: 460).

119. In Traina and Bertotti (1985: 460) this difference is suggested: "la concessiva apporta una limitazione all'enunciato della sovraordinata ('benché sia bella, non mi piace' = 'è bella, sì, ma non mi piace'), l'avversativa constata un'antitesi ('mentre io piango, tu ridi' = 'io piango e tu invece ridi' " 'the concessive puts a limit on the utterance in the superordinate clause (although she is beautiful, I do not like her = she is beautiful indeed but I do not like her), wheras the adversative simply records an opposition (while I am crying, you are laughing (= I am crying and you are laughing instead)).'

b. Nep. *Phoc.* 1,2: *fuit … perpetuo pauper, cum diuitissimus esse posset …*
'he was steadily poor, while although he could be rich … '

Generally, with concessive *cum*-clauses the conceded circumstance is factual and consequently the interpretation is of a true concessive period. A concessive conditional interpretation is possible only when the *cum*-clause is focalized by *etiam*, as in (144), where *etiam cum* is equivalent to 'even when'.

(144) a. Cic. *rep.* 2,7: *atque etiam cum manent corpore, animo tamen exulant et uagantur*
'and even when their bodies stay at home, their thoughts nevertheless fare abroad and go wandering'
b. Sen. *nat.* 6,5,3: *in qua, etiam cum multum acti erit, omnis tamen aetas quod agat inueniet*
'even when much will have been done on this subject, every age will nonetheless find something to do'

2.5.5. Vt*-clauses*

Examples of *ut*-clauses with a concessive nuance are not rare, and in many grammars *ut* is listed among the conjunctions which introduce concessive clauses.[120] In fact, the true origin and the real status of *ut* with a concessive sense is a much debated question.[121] The difficulty arises above all from the fact that certain instances seem to suit a paratactic origin (where *ut* would simply accompany a *coniunctivus concessivus*, like (145a), while other instances seem to strengthen the hypothesis of an original correlative diptych,[122] where *ut* introduces the first member (see (145b)).

120. See, for example, Traina and Bertotti (1985: 455), where it is said that *ut* is a conjunction introducing a subjective concessive and signaling the fictitious and abstract character of the concession ('posto che'; 'anche ammesso che'). A different opinion is suggested by Cevolani (1960), according to whom the examples that grammars normally treat as cases of subordinate concessive *ut* are, instead, cases of independent concessive (*coniunctivus concessivus*) with *ut* as an emphatic particle.
121. For a survey of the various analyses of this aspect and related references, see Maraldi (1998).
122. This origin is suggested by Haudry (1973: 162).

(145) a. Ov. *Pont.* 3,4,79: *ut desint uires, tamen est laudanda uoluntas*
'even though I lack the strength, yet the will is praiseworthy'
b. Ter. *Hec.* 296: *ut taceam, quoiuis facile scitu quam fuerim miser*
'anyone can see without my telling him how wretched I must have been'

Whatever the origin may be, this type of *ut*-clauses tends to develop more and more a hypotactic character and to function as the protasis of a concessive conditional period,[123] as shown by (146a–c). Here, the *ut*-clause formulates a supposition which is characterized as extreme. In (146c), the supposition not only represents the extreme point in the relevant scale, but is counterfactual, as emerges from the parenthetical assertion.

(146) a. Liv. 28,12,7: *qui, ut omnis coleretur, exiguus tamen tanto alendo exercitui erat*
'even supposing all of it to be under cultivation, it was nevertheless too small to feed so large an army'
b. Petron. 45,6: *ut quadringenta impendat, non sentiet patrimonium illius*
'he can spend four hundred thousand without his estate's feeling it'
c. Sen. *benef.* 2,18,3: *ut non sequantur ulla incommoda (secuntur autem plurima), graue tormentum est debere, cui nolis*
'even if there were no unfortunate consequences (and there are very many of them), it is nonetheless serious torture to be indebted to someone whom you object to'
d. Cic. *Lig.* 27: *ut enim cetera paria Tuberoni cum Varo fuissent … quae nequaquam fuerunt, hoc certe praecipuum Tuberonis …*
'granted that all the other things had been possessed by Tubero equally with Varus, as they certainly were not, Tubero had at least this special advantage … '

The contrast between the virtual situation that is conceded and the real state of affairs is often made explicit. Another example is (146d). Here, the relative

123. Cf. Maraldi (1999b).

clause contains a commentary emphasizing that the concession is made for argument's sake.

2.6. Concession in paratactic and coordinate structures

As we mentioned in the introductory remarks, a concessive relation can be expressed both by subordinate concessives and by adversative sentences, as in (110) and (111), repeated as (147). However, the equivalence between a concessive and an adversative construction is possible only in the case of direct opposition, where, by normal standards, the facts denoted by the two clauses are incompatible. In the case of indirect opposition this equivalence is more difficult, as shown by the oddity of (148b). In an indirect opposition the relation between the two propositions makes sense if they function as arguments supporting contradictory conclusions. Thus, the full sense of the sentence in (148a) can be captured when it is uttered in a situational context where a producer and a director are looking for a good actor with brown eyes. Whereas the first argument 'he knows his job' might give rise to the conclusion that this actor will be part of the cast, the second argument 'he's got blue eyes' leads to the opposite conclusion, and this argument is stronger from an argumentative point of view: the speaker does not consider the actor as suitable.

(147) a. = (110) *Although he was very sick, he went to work*
b. = (111) *He was very sick, but he went to work*[124]

(148) a. *He certainly knows his job, but he's got blue eyes*
b. ?*Even though he knows his job, he's got blue eyes*

124. In the adversative coordination *p, but q*, the connective *but* is equivalent to the French inclusive *mais*. The distinction between two types of adversative *mais*, "inclusif" and "exclusif" (cf. Anscombre and Ducrot 1977; Leclère 1979) captures that difference which is lexicalized in other languages (cf. Italian *però/bensì*; German *aber/sondern*; Spanish *pero/sino*. While *mais* ("inclusif"), *però, aber, pero* connect two acts of argumentation, *bensì, sondern, sino* connect two semantic contents and mark an act of rebuttal (compare, for example, *John is not a cheeky boy, but a timid person*).

The different behavior of *even though* and *but* is paralleled by *bien que* and *mais* in French. Moeschler (1989) captures this difference by distinguishing two types of concession: while *bien que* is the typical marker of the causal concession, *mais* is the typical marker of the argumentative concession. Since the argumentative concession permits a more indirect contrast between the two propositions involved, it is more suitable as a discourse strategy, more properly as "rhetorical concession". In fact, rhetorical concessives[125] are sentences where the speaker concedes the significance as an argument of the first assertion but, at the same time, emphasizes the stronger argumentative force of the second assertion. Concessive constructions of this type are common in many languages and are typically structures of coordination and not of subordination, which have an assertive or an epistemic modal mark in the first constituent and an adversative mark in the second (cf. Eng. *true … but*; *may be … but*, as in *True, he is still very young, but he has proved very reliable so far* and *he may be a professor but he is an idiot*; Germ. *zwar … aber*; *vielleicht … aber*; Fr. *certes … mais*; *peut-être … mais*; It. *certamente … ma*; *può darsi … tuttavia*). In Latin the constructions which correspond more to the type of concessive coordination[126] with an assertive or epistemic mark in the first proposition are the correlative structure *quidem … sed* and and the so-called "concessive subjunctive".

2.6.1. *The correlative type* quidem … sed (tamen)

Examples of argumentative (rhetorical) concession obtained by means of the correlation *quidem … sed (tamen)*[127] are given in (149a–d). The presence of

125. Cf. König (1994).
126. As highlighted by Iordache (1992 : 53), the concessive coordination is not marginal in Latin; "la coordination concessive (à l'indicatif et à l'optatif) pénètre progressivement, en qualité de procédé du style oratoire, dans les ouvrages historiques et philosophiques, de même que dans la poésie cultivée". The various stylistic features which characterize the concessive coordination (as anaphora, polyptoton, alliteration, rhetorical questions) emphasize the rhetorical value of this type of concession. The constructions we analyze here are those coordinate structures where the first proposition too contains an explicit mark of concession of assertive or epistemic type.
127. The correlation *quidem … sed* is one of the different uses of the particle *quidem*. For a description of the other uses of *quidem*, see Solodow (1978) and Kroon (2005).

quidem in the first assertion has a strategic function:[128] it signals to the interlocutor (real or fictitious) that the speaker's agreement is only partial. By emphasizing the truth of the first proposition (maintained by the interlocutor), the speaker signals that he is not committed to the significance of what he concedes and anticipates that a second, more relevant argument is being added.

(149) a. Cic. *Att.* 15,4,3: *non recuso id quidem, sed et componendum argumentum est et scribendi exspectandum tempus maturius*
'that I don't refuse, but I should have to settle on a line of argument, and I should have to wait for more time to write it'

b. Cic. *Att.* 12,10,1: *tuus autem dolor humanus is quidem, sed magno opere moderandus*
'but your grief, though it is a kindly weakness, should be kept well in check'

c. Cic. *Tusc.* 5,21: *uellem id quidem, sed habeo paulum, quod requiram*
'I could wish the same, but I have a small point to raise'

d. Ov. *ars* 1,681–682: *fabula nota quidem, sed non indigna referri, / Scyrias Haemonio iuncta puella uiro*
'well-known, yet not undeserving of mention, is the tale of the Scyrian maid and her Haemonian lover'

e. Plin. *epist.* 1,20,14: *premit sane quod elegit, sed in eligendo frequenter errat*
'he indeed attacks what he has chosen to attack, but his choice is frequently mistaken'

f. Tac. *dial.* 22,3: *uelut in rudi aedificio, firmus sane paries et duraturus, sed non satis expolitus et splendens*
'it is just as in rough-and-ready construction work, where the walls are strong, in all conscience, and lasting, but lacking in polish and luster'

128. In Maraldi (2001a) it is suggested that the original nucleus of the concessive correlation *quidem … sed* can be individuated in Cato *orat.* 119: *atque ego quidem arbitror Rodienses noluisse nos ita depugnare … neque regem Persen uinci. Sed non Rodienses modo id noluere, sed multos populos … idem noluisse arbitror*, where *quidem* functions as an emphatic particle which satisfies principles of politeness at the discourse level.

A similar function can be assigned to *sane* in occurrences like (149e–f). In (149e), for example, by means of *premit sane* Pliny resumes the content of an assertion made by Regulus (*premo*) just before and accepts it as a fact, but immediately after this concession, he calls this content into question by expressing his own negative opinion.[129]

However, unlike *quidem*, *sane* rarely occurs with an indicative, as in the examples above. More frequently it accompanies a concessive subjunctive.

2.6.2. Concessive subjunctive

Following Berretta (1997: 10), the so-called concessive subjunctive[130] can be considered the Latin parallel of the Italian future, which is used as an epistemic mark of concession.[131]

A well-known early instance of this construction is the passage by Cato (150). The function of the concessive subjunctive as the first member of a concessive coordination is analogous to that of the assertive particles *quidem* and *sane*: it signals that the speaker keeps himself distant from what he concedes.[132]

129. On *sane* as a marker of diaphony, see Risselada (1998). The term "diaphony" refers to the thoroughly interactional phenomenon that speakers may incorporate "other voices" in their own speech, and thus embed dialogical elements in an essential monological discourse unit.

130. On the origin and nature of this subjunctive there are contrasting opinions. Some scholars maintain a "volitive" origin, while others prefer an "optative" origin. This last opinion is mainly defended by Iordache (1992), who adopts the term "optatif suppositif" for the subjunctive commonly called "concessive" by grammars. According to Calboli (1966–1968: 275–276), both origins are possible.

131. See, for example: (i) *Sarà (pure) bello, ma non è simpatico*; (ii) *Avrà fatto grandi cose, però ora sembra un povero diavolo*. On other Italian correlative structures expressing concession, see Berretta (1998).

132. In the case of the concessive subjunctive, *sane* is not itself the mark of concession, but behaves like the assertive Italian particles *ben(e), pur(e)* which often accompany the concessive future. Cf. Berretta (1998: 86).

(150) Cato *orat*. 124: *Rodiensis superbos esse aiunt id obiectantes, quod mihi et liberis meis minime dici uelim. Sint sane superbi. Quid id ad nos attinet?*[133]
'they say that people from Rhodes are proud, thus making them a reproach which I wouldn't like to be directed against me or my children. Let us suppose they are really proud: what does it concern us?'

The classical occurrences of this construction are modelled on Cato's example (151a–c). In Cicero some innovations are introduced, such as the use of the perfect tense and the juxtaposition of imperative forms (*esto*, *age*) (151d–e).

(151) a. Cic. *ac.* 2,105: *haec si uobis non probamus, sint falsa sane, inuidiosa certe non sunt*
'if we do not win your approval for these doctrines, they may no doubt be false, but certainly they are not detestable'
b. Sall. *Catil.* 52,12: *sint sane, quoniam ita se mores habent, liberales ex sociorum fortunis, sint misericordes in furibus aerari: ne illi sanguinem nostrum largiantur*
'let these men by all means, since such is the fashion of the time, be liberal at the expense of our allies, let them be merciful to plunderers of the treasury; but let them not give of our blood liberally'
c. Cic. *Tusc.* 2,14: *ne sit sane summum malum dolor; malum certe est*
'granted that pain be not indeed the chief evil, an evil it assuredly is'

133. According to Calboli (1978: 322–323), the presence of the concessive subjunctive *sint* (rare in Early Latin), and of *sane* (not found elsewhere in Cato), would give a refined character to the alliteration. This opinion is not shared by Sblendorio Cugusi (1982: 344), who does not recognize any true function of *ornatus* to the allitterating nexus. She emphasizes, instead, how the figure of *responsio* is appropriately used in the question which follows.

d. Cic. *Lig.* 18: *fuerint cupidi, fuerint irati, fuerint pertinaces: sceleris uero crimine, furoris parricidii liceat Cn. Pompeio mortuo, liceat multis aliis carere*
'moved they may have been by partisanship, by passion, by obstinacy; but of the charge of criminal purpose, of frenzy, of parricidal treason, let the dead Gnaeus Pompeius and many others be absolved'

e. Cic. *Mil.* 49: *age, sit ita factum: quae causa, cur Romam properaret ... ?*
'well, let us suppose that this was the case. What motive did he have for a hurried return to Rome ... ?'

Besides the concessive subjunctive, the modal *posse* and the adverb *fortasse* can also function as epistemic marks of concession (152).

(152) a. Sen. *dial.* 3,20,7: *terribilia enim esse et tumultuosa et exitiosa possunt; magnitudinem quidem, cuius firmamentum roburque bonitas est, non habebunt*
'evil men may be terrible, turbulent, and destructive, but greatness they will never have, for its support and stay is goodness'

b. Cels. 4,9,14: *hoc genus neque acutum est et potest esse non longum; curationem tamen maturam ... desiderat*
'this sort (of medical condition) is not acute, and may be not long; nevertheless, it requires timely treatment'

c. Cic. *div.* 1,25: *ea fallit fortasse non numquam, sed tamen ad ueritatem saepissime dirigit*
'it sometimes misleads perhaps, but nonetheless in most cases it guides us to the truth'

As we will see, the epistemic modality also seems to play a role in the evolution of *licet* toward the lexicalization as a concessive subordinating conjunction.

2.7. *Licet*

The syntactic and semantic complexity of *licet* is well known. It derives from the varied behavior of this lexical item which evolves in the course of Latinity, becoming a true concessive subordinating conjunction in the Late period. Recent studies[134] on Latin linguistics have dealt with the analysis of this form, trying to individuate which aspects have contributed to its evolution and which criteria assure a clear-cut border between use as a conjunction and use as a verb. From these studies it emerges that the reinterpretation of the verb *licet* as a conjunction is a gradual process and that for a long time the form *licet* remains ambiguous between verbal and conjunctional value. Its lexicalization as a conjunction is accomplished in Apuleius, where it occurs with participles (153a), with adjectives (153b), and, for the first time, accompanying an indicative (153c). After Apuleius, the use of *licet* as a conjunction extends considerably; it becomes the typical concessive marker in late prose works.

(153) a. Apul. *met*. 7,26,3: *sed quod solum poteram, tacitus licet serae uindictae gratulabar*
'I did the only thing I could: rejoice silently in my revenge, overdue as it was'

b. Apul. *met*. 11,1,1: *fato … satiato et spem salutis, licet tardam, subministrante augustum specimen deae praesentis statui deprecari*
'since fate was now satiated and was offering me the hope, albeit late, of deliverance, I decided to pray to the august image of the goddess present before me'

c. Apul. *met*. 2,6,8: *quod bonum felix et faustum itaque, licet salutare non erit, Photis illa temptetur*
'so now may this be good, favorable, and auspicious – even if it will not be salutary: let Photis be assailed'

134. See Núñez (1991); Maraldi and Orlandini (1997); Martín Puente (1998c); Purnelle (1998, 2001).

In the classical period, the only clear instance of *licet* functioning as a conjunction and equivalent to *quamquam* is found in the *Bellum Hispaniense* (154).

(154) *Bell. Hisp.* 16,3: *quod factum licet necopinantibus nostris esset gestum, tamen uirtute freti repulsos multisque uulneribus adfectos oppido represserunt*
'but although this operation had come as a surprise to our men, yet, relying on their valor, they repulsed the enemy, inflicted heavy casualties upon them, and drove them back to the town'

Here *licet* occurs with a pluperfect subjunctive, which would be difficult to account for if *licet* were intended here as a verb. In fact, the verb *licet* belongs to the type of modal verbs meaning 'allowance-possibility'. It can have a radical use in which it expresses 'allowance to do something', and an epistemic use with the sense 'it is possible that'.[135] Because of these semantic values, the verb *licet* cannot be syntactically consistent with tenses of the subjunctive that normally express counterfactuality (as the pluperfect does). In normal classical constructions *licet* occurs with an infinitive complement (155a), an accusative with infinitive (155b–c), or with a subjunctive in the present or perfect tense, in agreement with the *consecutio temporum* (155d–e).

(155) a. Cic. *Phil.* 13,14: *licet autem nemini contra patriam ducere exercitum*
'now it is not lawful for any man to march an army against his country'
b. Cic. *Tusc.* 1,91: *licet etiam mortalem esse animum iudicantem aeterna moliri*
'and so the man who concludes that the soul is mortal may yet attempt deeds that will not die'
c. Lucr. 5,680: *crescere dies licet et tabescere noctes*
'days may also increase and nights may wane'

135. Cf. Núñez (1991: 184–186).

d. Cic. *ad Brut.* 1,17,5: *licet ergo patrem appellet Octauius Ciceronem, referat omnia, laudet, gratias agat, tamen illud apparebit, uerba rebus esse contraria*
'let Octavius then call Cicero "father", submit everything to him, compliment him, the fact will show though, that his words contradict his deeds'

e. Cic. *epist.* 13,27,1: *licet eodem exemplo saepius tibi huius generis litteras mittam, cum gratiam agam … sed tamen non parcam operae …*
'it is excusable to use exactly the same terms over and over again in sending you letters of this kind; but for all that I shall make every effort … '

If we compare the singularity of (154) with the classical instances in (155d) and (155e), we note that the presence of a concessive interpretation at the semantic level is not a sufficient condition to determine that *licet* has the status of a conjunction. As (155d) and (155e) evidence, the concessive interpretation is possible even when *licet* still functions as a verb; however, in this case it is not due to *licet* itself, but to the combination of *licet* with other contextual factors. First, it is necessary that in the context there are two propositions pragmatically (argumentatively) in contrast. Second, the concessive interpretation better suits *licet* accompanying a subjunctive than an infinitive. Whether examples of the type *fremant omnes licet, dicam quod sentio* are to be analyzed as cases where the verb *licet* governs the subjunctive and has an epistemic sense ('it may be that all protest'), or as cases where *licet* accompanies a concessive subjunctive ('let all then protest, it does not matter') is still an open question.[136] However, it is hardly relevant for the hypothesis that examples like (155c) and (155d) constitute the original nucleus from which the future lexicalization of *licet* as a concessive conjunction started. The data we have at our disposal, from Early Latin to Apuleius,[137] show that *licet* +

136. Núñez (1991: 185) suggests that the starting point for the future development as a concessive conjunction is in examples like (155c), where *licet* has epistemic use and there is a contrast between the two coordinate propositions. Other analyses agree in suggesting that the subjunctive is independent and *licet* functions as a parenthetic verb (cf. Schaffner 1954: 29–33). According to Iordache (1992: 74–76), in these cases *licet* is analogous to *sane* or *certe* when occurring with the optative of the concessive coordination.

subjunctive, already occurring in Naevius and Cato, becomes more and more frequent and specializes progressively in the expression of the concessive sense. The lexicalization of *licet* as a concessive subordinator, in Apuleius, represents the endpoint of a process that is slow and gradual. It is preceded by the normal and classical employment of *licet* in contexts which express argumentative (rhetorical) concession[138] (see (155d) and (155e)), and by the rarer post-classical use of *licet* in contexts like (156), where *licet fuissem* is equivalent to *etiamsi fuissem* and the interpretation of the sentence is as an unreal (counterfactual) concessive conditional.

(156) Mart. 5,39,8–10: *Croeso diuitior licet fuissem, / Iro pauperior forem, Charine, / si conchem totiens meam comesses*
'had I been richer than Croesus, yet I should now be poorer than Irus, Charinus, had you so often eaten beans of mine'

In its diachronic evolution, *licet* seems to follow that line of development which König (1992) has found in a wide variety of languages, according to which concessive conditionals are the result of a syntacticization of discourse and genuine concessive sentences develop from concessive conditionals as the endpoint of this process.

2.8. The concessive subordinators in Late Latin

A detailed description of the use and frequency of the concessive markers in Late Latin is provided by Spevak (2001, 2003). This broad investigation includes the greatest prose writers and poets of the fourth and fifth centuries and some other authors who have a less high and less careful style. The results of this investigation show that in the late period various changes affect the concessive subordinators: *licet* becomes prevalent,[139] followed by *qua-*

137. Cf. the statistical analysis provided by Purnelle (1998, 2001).
138. Cf. Maraldi (2001b).
139. Cf. Herman (1963: 64–65), who emphasizes that *licet* is also found in some vulgar Christian inscriptions (cf. *CIL* XIII 3836: *hic conditus Genesius … qui, licet inmaturo obitu distitutus, tamen superstitibus omnibus filis suis adque uxore deficit*) and in Marculfus' formulary of the seventh century (cf. Marc. *Form.* II,4: *licet in cessionibus poenam ad-*

muis, which tends to be preferred by the poets. As regards *quamquam*, it is only third in frequency and seems to be stylistically marked and have an archaizing flavor. Its frequency is significant in educated authors such as Augustine, Jerome, Symmachus, and particularly Ammianus, where *quamquam* is the second most common concessive marker after *licet.*[140] It is quite absent in the technical prose texts (Vegetius and Palladius), as well as in the *Itinerarium Egeriae*[141] and the *Mulomedicina Chironis*, which instead show some rare occurrences of *quamlibet.* The same archaizing flavor characterizes the scanty and only prosaic use of *tametsi*.

As regards *etsi* and *etiamsi*, their distribution tends to decrease and to be limited to prose. The poetry of Late Latin, in fact, shows the same scant use of *etsi* and *etiamsi* that characterizes both classical and post-classical poetry.[142] Their differences in behavior, which are typical of classical use, continue to be preserved: *etsi* remains tied to the factual sense of the conceded fact, while *etiamsi* is properly associated to counterfactual or potential hypotheses. This difference is confirmed by mood distribution: *etsi* predominates with the indicative, *etiamsi* with the subjunctive. Since in this Late period the subjunctive is the prevalent syntactic mood with *licet* and *quamuis*, the high frequency of the indicative with *etsi* becomes very significant: it supports the idea that *etsi* and *etiamsi* are never completely synonymous, in spite of their similar formation. On the contrary, partial synonymity is shown by *etsi* and *quamquam*.

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necti non est necesse, sed nobis pro homni firmitate placuit inserendum . . .).

140. *Quamquam* seems to be peculiar to late historical prose. Some occurrences are also found in Iordanes (Iord. *Rom.* 136: *et ut spem hostibus demeret, quamquam in summa fame tamen ad speciem fiduciae, panes ab arce iaculatus est*) and Gregory of Tours (Greg. Tur. *Franc.* 2,1: *quia quamquam esset superbus et uanus, castus tamen habebatur in corpore*).

141. In the *Itinerarium Egeriae* 7 occurrences of *licet* are found, while only 1 of *quamuis* and 1 of *quamlibet*.

142. Cf. Axelson (1945: 88–89).

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Causal clauses

1. Causality and adverbial clauses

Causality, understood in the broad sense of a relationship between a cause and its effect, is one of the more common procedures used in the languages of the world to establish a cognitive relation between two events. In particular, in written languages such as Latin, the relations of causality are also fundamental for establishing discourse coherence.

From among the different focuses used to conceptualize the relationship between cause and effect (causal, conditional, concessive, consecutive, and final clauses), this chapter addresses the first semantic type: that is to say, those sentences which are introduced by adverbial subordinators and in Latin express the cause, reason, motivation, or explanation of the main event as in (1) and (2), which respectively illustrate two semantic types of causal clauses, as we shall see in Section 2.

(1) a. Caes. *Gall.* 1,9,3: *Dumnorix … Heluetiis erat amicus quod ex ea ciuitate Orgetorigis filiam in matrimonium duxerat*
'Dumnorix was friendly to the Helvetii, because from that state he had taken the daughter of Orgetorix as his wife'

b. Plaut. *Cas.* 227: *sed uxor me excruciat quia uiuit*
'but my wife does torment me by living'

(2) a. Cic. *dom.* 110: *at quae dea est? Bonam esse oportet, quoniam quidem est abs te dedicata.*
'but what goddess is she? She must be a goddess, since it was you who enshrined her'

b. Cic. *Catil.* 3,29: *uos, Quirites, quoniam iam nox est, … in uestra tecta discedite*
'you, citizens, since it is now night, depart for your homes'

As our analysis is limited to adverbial clauses introduced by subordinating conjunctions, I do not take into account two types of examples which Latin grammars sometimes include among the causal clauses, but which are syntactically and semantically different from (1) and (2). One type occurs when the relationship of causality is not expressed explicitly but arises contextually from the logical relationship between the subordinated and the main event. This happens in Latin with certain relative clauses, especially those in the subjunctive, in examples like (3), or with nonfinite verbs such as a participle in the function of a *praedicativum* in (4), or with an ablative absolute (5).

(3) Plaut. *Pseud.* 504–505: *nam hinc quidem a me non potest / argentum auferri,* ***qui praesertim senserim***
'for no money's to be gotten out of me, that's for sure, especially, because my eyes are wide open'

(4) Cic. *Cato* 56: *C. Seruilius Ahala Sp. Maelium regnum* ***adpetentem*** *occupatum interemit*
'Gaius Servilius Ahala seized Spurius Maelius and put him to death for attempting to secure regal power'

(5) Cic. *nat. deor.* 2,8: *C. Flaminium Coelius* ***religione neglecta*** *cecidisse apud Transumenum scribit*
'Caelius writes that Gaius Flaminius after/by ignoring the claims of religion fell at the battle of Trasimene'

On the other hand, it is possible to express a causal relationship through connectors such as *nam* or *enim* ('for'), as in (6) and (7). These types of connectors, which Classical Latin grammars label "causal coordinating conjunctions", are not subordinators but rather are discourse particles which link text units. In addition, in the case of Latin (Kroon 1995), the causal sense of *nam* or *enim* does not constitute their basic meaning, but is rather a contextual and secondary derivation of their discursive or argumentative functions.[1]

1. It should be pointed out that causal conjunctions such as *quoniam* are proximate to *nam* type connectors in some contexts: they share semantic characteristics with these, which shows that, in the end, there is a *continuum* between coordination and subordination.

(6) Cic. *leg.* 2,16: *habes legis prooemium; sic* ***enim*** *haec appellat Plato* ‘there you have the proem to the law; for that is the name given to it by Plato’

(7) Plaut. *Mil.* 98: *date operam,* ***nam*** *nunc argumentum exordiar* ‘attention, please, for now I begin with the plot’

In the light of these preliminary considerations, I begin by distinguishing two semantic types of causal clauses (Section 2), a distinction Latin shares with many other languages and which is justified by their distinct syntactic and semantic nature, as well as by the specific adverbial subordinators. This distinction is pertinent as regards the description of the causal conjunctions in Latin (Section 3) and their grammaticalization processes (Section 4) and especially regarding the analysis of the characteristics (semantic, syntactic, and pragmatic) which define and distinguish the conjunctions which more frequently and explicitly express a causal relationship in Archaic and Classical Latin: *quod, quia*, *quoniam* and *quando* (Section 5). With regard to this characterization, I will point out some fundamental changes which affect the system of causal clauses in Late Latin and which help toward an understanding of the current system of the Romance languages (Section 6).

2. Two semantic types of causal clauses

In general, the circumstances by which a speaker establishes a cognitive relationship of a causal nature between two events are multiple. In other words, the general concept of Cause includes very diverse semantic content (cause, motive, reason, evidence, explanation, justification, motivation, etc.), and not all of these are expressed by adverbial clauses, nor are they expressed in the same way. Thus, the analysis of causal clauses in very different languages shows that there are two fundamental semantic types, illustrated in (8) and (9):

(8) a. *The house collapsed because it was old* (physical-external Cause. Adjunct)
b. *John ran to the station because he wanted to catch the train* (Reason or Motive. Adjunct)

(9) a. *John's at Sue's house because his car's outside* (Evidence or Explanation. Disjunct: propositional satellite)
b. *Since you are interested, John is a Catholic* (Justification or Motivation of speech act. Disjunct: illocutionary satellite)

Thus in (8), the subordinated clause expresses the cause or motive which gives rise to or makes the main event possible: in (8a) the cause is external, and there is a natural relationship between the cause ('a house being old') and its effect ('collapsing'); while in (8b), the reasons (internal cause) or considerations which induce an agent to carry something out are pointed out.[2] One fundamental difference between these two subtypes lies in the fact that in (8a) the subjects do not have semantic restrictions, while in (8b), as these are acts of the will, they presuppose an Agent who controls the carrying out of the dependent state of affairs. This explains why only type (8b) causal clauses can be coordinated or replaced by final clauses (*John ran to station in order to catch the train*). There are languages which use different conjunctions[3] for each of the semantic subtypes in (8), but the norm is that the same conjunction can be used both for the external cause and for the internal motive. This is what happens in Latin: there do not seem to be sufficient reasons to establish a difference between *quod* and *quia* in terms of external Cause vs. Reason or Motive (Bolkestein 1991: 434). The causal clauses of (9) are of a different nature. In (9a), the speaker states the source (Evidence) which justifies the validity of the propositional content of the main clause: the cause is expressed as added information, as a reasonable explanation of the situation described in the main clause. In (9b), however, the causal clause justifies the speech act itself; that is, it explains why the speaker makes a specific affirmation, question, and so on.[4] The two subtypes of causal clauses in (9) differ in some

2. Within the framework of Functional Grammar, Cause and Reason (or Motive) are considered to be two distinct semantic functions: "*Reason* satellites provide a motivation for why an SoA [state of affairs] (again, necessarily [+control]) took place in terms of a causal ground ascribed to the controller" and "*Cause* satellites provide a motivation which is not ascribed to any of the participants in the SoA, but which is advanced by the speaker as an explanation for the occurrence of the SoA" (Dik et al. 1990: 34).
3. Thus, for example (Dik 1997a: 244), in Dutch *omdat* (Reason) vs. *doordat* (Cause). However, it is usual for the same conjunction (*because* in English or *porque* in Spanish) to be used for both external and internal motivation (Givón 1990: 834).

aspects:[5] thus in (9a) *because* could be replaced by *for* – that is, it is a context in which a causal connector could appear – but such a substitution is not possible in (9b); the order of the causal clause (preposed or postposed) is also significant: in type (9b) causal clauses, the information is usually known or presupposed, which does not necessarily happen in examples such as (9a).[6]

The distinction between these two fundamental semantic types of causal clauses, illustrated by (8) and (9), is common in the descriptions of the causal clauses of very diverse languages,[7] even though their specifics do not coincide and there are aspects which are subject to discussion: especially in the delimitation of subtypes within causal clauses like (9) or in the establishment of the types of causality expressed by each adverbial subordinator in a given language.

This distinction is also justified by the fact that each semantic type of causal clause is integrated at different levels of clause structure and has different distributional properties.

Syntactically, the types of causal clauses in (8) and (9) correspond respectively with the distinction between adjuncts and disjuncts (Quirk et al. 1985:

4. Pinkster (1995: 45), in these examples, speaks of "pseudo–causal clauses" as they do not state the reason for the action or event expressed by the main clause.
5. They coincide with the distinction at the interpersonal level between propositional and illocutionary satellites, respectively; according to Dik et al. (1990: 64), "They specify the attitude of the speaker vis–à–vis the fact designated by the proposition" (propositional satellites) or "specify or modify the illocutionary force of the speech act in which the proposition is presented" (illocutionary satellites). In accordance with this distinction, the examples of causal clauses in (9a) and (9b) would correspond, respectively, to the propositional and illocutionary satellites. The different nature of these two types of causal disjuncts (epistemic vs. illocutionary) can be seen in the fact that they can be paraphrased differently (Kroon 1995: 131): as "I know this because ..." in (9a), as opposed to "I say/ask/ etc. this because ..." in (9b).
6. Furthermore, while the majority of European languages have a specific conjunction for introducing illocutionary causal clauses, such as those in type (9b), in order to introduce propositional satellites such as (9a) it is usual to employ the same conjunction as for causal adjuncts (Hengeveld 1998: 360–361).
7. Cf., among others, for English, Quirk et al. (1985); for French, Anscombre–Ducrot (1984); for German, Dunbar (1985); for Spanish, Galán (1999), for Italian, Previtera (1996); for Classical Greek, Rijksbaron (1976). In Latin these two semantic types coincide in part with the traditional distinction between "real" and "logical" cause (Ernout & Thomas 1953: 346; Bassols 1956: 349–50).

927–928) or, in the framework of Functional Grammar (Dik et al. 1990), between the representational level and the interpersonal level, respectively: the causal adjunct – that is, subordinate clauses such as those of (8), are integrated syntactically into the main sentence and, among other distributional features (Section 5 below), they can be the focus of a cleft construction, they introduce the response to a *why?* question, they can be anaphorically or cataphorically referred to, they can come within the scope of the negation and of the basic illocutionary force (declarative, interrogative, or imperative) of the main clause, and so on. The causal disjuncts, however – that is, examples like (9) – have greater syntactic independence as regards the distributional features of the integrated causal clauses, and this is reflected in many modern languages by the intonation or graphic pause which separates them from the rest of the sentence.

Normally, languages use different conjunctions for each basic type (adjunct vs. disjunct) of causal clause. Thus, pairs of causal conjunctions, such as Eng. *because/since*, Fr. *parce que/puisque*, Ger. *weil/da*, Sp. *porque/ya que*, It. *perché/poiché*, or Gk. ὡς/ἐπεί, show the relevance of this distinction: all of these have a specific causal subordinator as the illocutionary satellite – that is, for contexts such as (9b).

Frequently the same conjunction can appear at the adjunct and disjunct levels; therefore, it is relevant to describe the distributional properties of each conjunction in each particular language. In such cases it is normal that the less marked conjunction (*weil*, *porque*, *because*, etc.) is the one prone to appear indifferently at any syntactic level and to introduce different semantic types of causal clause.

Besides these and other interferences and ambivalences (which in fact complicate the specific description of causal clauses in each language), the important point is that this distinction between the two basic types of causal clauses is fundamental for the analysis of the Latin data both synchronically (in the classical period) and diachronically: toward the past in order to understand the grammaticalization process of different causal conjunctions, and toward the future in order to explain the passage of Late Latin to the Romance languages.

In fact, although the Classical Latin grammars sometimes formulate the relationships between the fundamental causal conjunctions (*quod*, *quia, quoniam, quando*) in terms of concurrence (Woodcock 1959: 197; Hofmann &

Szantyr 1965: 585, 627) – that is, their meanings and use overlap to a great extent – however, several studies have shown that, at least in the archaic and classical periods, it is possible to establish clear distinctive features between the Latin examples of *quod* and *quia* as in (1) and the causal clauses introduced by *quoniam* or *quando* in (2): the former usually introduce causal adjuncts, such as (8), while the latter are prototypically disjuncts, as in (9).[8]

This opposition between the two types of causal clauses (and conjunctions) in Latin is clearly maintained at least from Plautus to Livy and is based on a number of distributional features which I comment on in Section 5 below. Of course, this is a gradual opposition, as there is frequent interference between these conjunctions, especially in post-Classical and Late Latin; therefore, the diachronic perspective (Section 6) is necessary. Moreover, the differences between *quod* and *quia* as regards *quoniam* or *quando* are coherent with their different origins and grammaticalization as causal conjunctions (cf. Sections 3–4).

3. Types of causal conjunctions in Latin

Within the general framework of adverbial clauses, one fundamental ideal of typological studies is that the notion of Cause is situated in the "hard core" of semantic relationships between clauses. According to these studies, the centrality of causal clauses is justified, among other reasons, because Cause is, together with Condition, the type of adverbial relationship which presents a greater level of lexicalization: not only do all European languages have an adverbial subordinator for the expression of Cause, but Cause is also the semantic relationship which presents a greater number of subordinating conjunctions (Kortmann 1997a: 147–150).[9] In addition, Cause is the semantic relationship in which there are marks of a greater number of similar semantic

8. Cf. Fugier (1987; 1989), Bolkestein (1991) or Mellet (1994; 1995), among others.
9. Cause is the semantic relationship which presents a greater number of "primary adverbial subordinators" (Kortmann 1997a: 150), i.e. one-word items which belong in origin to any other syntactic category (interrogative markers, relativizers, adpositions, adverbs, etc.) have first been grammaticalized as causal conjunctions.

relationships: Time (Anteriority or Simultaneity), Manner, Condition, Instrument, and so on.

If we are to take note of the classic syntax manuals,[10] Latin fully confirms this centrality of causal clauses due to its high level of lexicalization and the abundance of subordinating conjunctions which express this semantic relationship as an exclusive, primary, or secondary meaning. However, the Latin grammars (on whose data the typological studies are generally based) analyze conjunctions of a very different nature in a similar way. Thus, in my opinion, it is necessary to distinguish two fundamental groups of Latin causal conjunctions.

(i) First, there are the conjunctions which have exclusive or primary causal content from the first examples of their grammaticalization as such. This group includes *quod* (relative origin) and *quia* (interrogative origin), which are different between authors and eras, but are the most frequent causal conjunctions in Classical Latin. The interrogative forms *quare* and *cur* ('why?') should be added to these as they were converted to causal conjunctions especially in Late Latin.

(ii) Second, there are those conjunctions which were first lexicalized with other adverbial content and have secondary or merely contextual causal content. In this case, the types are very diverse: conjunctions which primarily express a temporal (*quoniam, quando, dum*, *postquam*, *ubi*, *cum*), modal (*ut* + indic.*, quomodo, tamquam*), or final (*ut* + subjunc.) content or quantifiers (*quatenus*), reinterpreted as causal conjunctions.

These two groups of causal conjunctions are justified due to their different morphological origin, the fact that they express a causal content in a primary or secondary manner, and because they correspond to the two types of causal clauses (adjuncts and disjuncts) which have just been established (Section 2). In fact, setting aside certain diachronic developments (Section 6), in Archaic and Classical Latin *quod* and *quia* – that is, the conjunctions having relative-interrogative origins with primary or exclusive causal meaning – introduce syntactically integrated clauses (adjuncts), as in (1), while all the causal conjunctions of secondary origin (temporal, modal, or of quantity) introduce exclusive or fundamentally extra-predicative or illocutionary

10. Cf., e.g., Ernout & Thomas (1953: 346–350) or Bassols (1967: 349–358).

causal clauses (disjuncts), as in (2). To sum up, there is, at least in Classical Latin, congruence or equivalency between morphological origin, level of lexicalization (primary or secondary), and the type of causality of the Latin conjunctions.

Furthermore, a simple count of Latin causal conjunctions seems to confirm the idea that of all the ancient Indo-European languages, it is Latin which possesses the widest variety of causal conjunctions (Kortmann 1997b: 223), an affirmation which, however, should be clarified from the diachronic point of view. As we shall see in Section 4, in Archaic and Classical Latin the number of conjunctions which really express formal causal content as exclusive (*quia*), primary (*quod*), or secondary (*quoniam*, *quando*, *ut* + indic.) is much less than in, for example, a Romance language like modern Spanish (Galán 1999): *que*, *porque, ya que, puesto que, dado que, visto que*, *como*, *como quiera que*, *pues*, and so on.

In short, it is justified to say that Latin has a wide variety (in number and diversity of origin) of causal conjunctions during the late epoch. In fact, the Latin of the 4th century CE, the Latin of Ammianus Marcellinus, but also that of the Vulgate, maintains to a greater or lesser extent the causal conjunctions of the classical period and these coexist with, and in many cases are displaced by, new forms: *eo quod, pro eo quod, pro quod, quare*, *quatenus*, and so on.

Finally, the simple comparison between the Latin causal conjunctions and those of modern European languages (especially the Romance languages) shows two fundamental differences which can be extended in part to the rest of the adverbial subordinators.

(i) The first difference has to do with the origin of the causal subordinators: of the six fundamental sources which, in the order of frequency time, manner, goal/purpose, quantifiers, instrument, and interrogative-relative markers, constitute the origin of the causal conjunctions in 49 European languages (data from Kortmann 1997b: 222), it is precisely the last of these categories which is the origin of the two fundamental causal conjunctions *quod* (relative) and *quia* (interrogative) in Latin.

(ii) Moreover, especially in the Romance languages, it can be seen that there is a greater morphological complexity in the adverbial conjunctions from monomorphemic – *quod, quia, dum* – to polymorphemic – *quoniam, quare* – one-word subordinators in Classical Latin, to phrasal or multiword subordinators in the Romance languages (such as the Span-

ish *puesto que, ya que*, *visto que*, *como quiera que*) with the usual inclusion of the conjunction *que* (or in English *that*).[11] Of course, such an important typological change (from synthetic to analytic languages) was necessarily gradual, and some stages of this evolutionary process can be seen in Late Latin, as we shall see in Section 6.3.

These two distinctive features of Latin are to a great extent related: the origin and grammaticalization, for example, of *quod* and *quia* as causal conjunctions helps us to understand their subsequent evolution and the progressive morphological complexity of the causal conjunctions in Late Latin, which would naturally continue in the Romance languages.

4. Processes of grammaticalization of the Latin causal conjunctions

4.1. Primary causal conjunctions

As we have just pointed out, unlike the modern European languages, in classical Indo-European languages the most important source of causal subordinators and of adverbial subordinators is case-marked relatives and interrogatives: *quod, quia, cum, quo*, *quin, ut,* and so on. In fact, all the Indo-European languages have subordinators which have their origins in an old adverb derived from the theme of the relative (Skt. *yátra*, Gk. ὡς, Lat. *ut*, etc.) or, more usually, the causal form of the neuter singular of this pronoun, regardless of the root (**yo-*, **k^{w}o-*, and **so-/to-*), which would give Skt. *yád*, Avest. *yat*, Gk. ὅτι, ὅτε, Lat. *quod*, *quom*, Lith. *kàd*, OCS *jako*, OPers. *tyah*, and so on.

4.1.1. The conjunction quod

Thus, the grammaticalization of *quod* as a conjunction can be explained in a similar way to other subordinates of the Indo-European languages which arise from correlative structures, halfway between parataxis and hypotaxis (Haudry 1973). The specific values of these conjunctions (fundamentally as complementizers or causal and temporal subordinators) constitute developments which are peculiar to each language although the grammaticalization

11. Cf. Kortmann (1997a: 104–106; 1998: 476–478).

process is similar in all of them: the syntactic reinterpretation of these neuter relatives as conjunctions arose from correlative structures, of the *quod* … *id* type (10a) or *quod* … *eo* (10b), where the specific sense of the relationship was expressed through an anaphoric referent.

The grammaticalization process of *quod* as a conjunction can be followed almost step by step in Archaic Latin. In fact, examples such as (10) and (11) show the different stages (inversion of the pair *quod* … *id* > *id* … *quod*, suppression of the correlative, etc.) of a logically gradual process where the frontier between *quod*-relative and *quod*-conjunction is not always evident, as can be seen in (10c).[12]

(10) a. Ter. *Haut*. 888: *gnatu'* ***quod*** *se adsimulat laetum,* ***id*** *dicis?*
'that my son's delight is a pretense, is that what you mean?'
b. Plaut. *Truc*. 457: *mater dicta* ***quod*** *sum,* ***eo*** *magis studeo uitae*
'being called a mother, therefore I'm the more concerned to make things live'
c. Plaut. *Capt*. 996: ***quod*** *male feci crucior*
'I am tormented by the horrible thing which I did / I am tormented for having done the horrible thing'

(11) a. Cic. *Att*. 4,1,7: *nos tacemus, et* ***eo*** *magis* ***quod*** *de domo nostra nihil adhuc pontifices responderunt*
'I hold my peace, especially therefore, because the pontifices at present have given no answer about my house'
b. = (1a) Caes. *Gall*. 1,9,3: *Dumnorix* … *Heluetiis erat amicus* ***quod*** *ex ea ciuitate Orgetorigis filiam in matrimonium duxerat*
'Dumnorix was friendly to the Helvetii, because from that state he had taken the daughter of Orgetorix as his wife'

In these contexts, and in accordance with this process, *quod* basically involves the nominalization of a secondary clause (Fugier 1989: 94; Rosén 1989: 207) which expresses a factual content ('the fact that'). The transformation of *quod*

12. In this example, there are at least three different analyses of *quod* (Ghiselli 1953: 231–232): as a relative (*Mi cruccio per ciò che ho mal fatto*), complementizer (*Mi cruccio d'aver fatto male*) and causal subordinator (*mi cruccio perchè ho fatto male*). With regard to this process, cf. Taylor (1951) and Woolsey (1953).

into a causal conjunction is the result of a transfer of the syntactic possibilities of the correlative (i.e. *eo quod* 'therefore, that' > *quod* 'because'), or of the relative itself in the accusative (Hofmann & Szantyr 1965: 572–574), as illustrated by (10c): 'because of which, why' > 'because'.[13]

However, besides the details of this process, it is important to stress that the conjunction *quod* is neither unambiguously nor explicitly causal. It is not unambiguously causal because *quod* can introduce sentential complements (although these are limited in principle and fundamentally to factual verbs such as those of feeling or occurring: *gaudeo quod* ... 'I rejoice that ...' / *accidit quod* 'it happened that ...') or, in the initial position, thematic clauses, scarcely integrated from a syntactic point of view ('as to the fact that ...'). Nor is it explicitly causal, as the causal value is one more realization in which the relative position of the subordinate is decisive. For example, it is always postposed to the main clause, except in very specific pragmatic contexts, and in the presence of correlatives in the syntactic structure of the main sentence.

4.1.2. The conjunctions quia*,* cur*,* quare

With regard to this semantic vagueness and the syntactic multifunctionality of *quod* (relative, complementizer, adverbial subordinator), in Archaic and Classical Latin *quia* is an unambiguous and exclusively causal conjunction (Baños 1991): semantically and syntactically it is much more marked than *quod*. This fundamental difference is in consonance with a grammaticalization process which is different from that of *quod*: *quia*, neuter plural of the interrogative root (*k^wi-*), would have had an interrogative-causal sense ('why?') at origin and this was maintained, especially in Archaic Latin, in the form *quianam* ('why then?'). From this interrogative use it would have acquired the value of a causal conjunction (Kühner & Stegmann 1914: 270–271) through a process involving the loss of the pause and the interrogative tone (Hofmann & Szantyr 1965: 585), which is illustrated in (12).

13. The position of the *quod* clause with regard to its main clause is undoubtedly relevant: preposing involves the thematization of the *quod* clause which, syntactically, appears to be hardly integrated in the main clause; however, postposing rhematizes the *quod* clause which is more clearly integrated into the main clause and is subordinated to it; the causal and the complementizer values of *quod* are generally seen in this postposing.

(12) a. Plaut. *Cas.* 211: *uxor me excruciat. quia? uiuit*
'my wife does torment me. Why? She lives!'
b. Plaut. *Cas.* 227: *sed uxor me excruciat* ***quia*** *uiuit*
'my wife does torment me by living'

In accord with its interrogative origin, always in Archaic Latin and frequently in Classical Latin, *quia* introduces the response to a causal question (*cur? quid? quam ob rem? qua re?*, etc. 'why?'), while *quod* never appears in this context in Archaic Latin (Bennett 1910: 123–132) and only exceptionally in the classical period.

The grammaticalization of *quia* as a causal conjunction is also confirmed by parallel processes in other languages,[14] and in Latin itself. In fact, the interrogatives of Archaic and Classical Latin *cur* and *quare* ('why?') are transformed into causal conjunctions ('because') in Late Latin, a process which is illustrated by (13) and (14). The continuance of *quare* in some Romance languages (Fr., Prov. *car*, Cat. *quar*) as a causal conjunction shows the importance of this process.[15]

(13) Quint. *inst.* 1,3,15: *nunc fere neglegentia paedagogorum sic emendari uidetur ut pueri non facere quae recta sunt cogantur, sed* ***cur*** *non fecerint puniantur*
'as it is, we try to make amends for the negligence of the boy's educators, not by forcing him to do what is right, but by punishing him for not doing what is right'

14. Interrogatives are a common source (and in many cases fundamental) for adverbial conjunctions in the majority of European languages (Kortmann 1998: 514). Take, for example, Modern Greek γιατί ('why? > because') or It. *perché* (interrogative, causal and final).

15. Cf. Herman (1963: 160–163), who finds it obvious the Romance *car/quar* is a continuation of the functions of Latin *quare*. However, the process is not so clear: in Late Latin, *quare* always appears in contexts of *quod* and *quia* (i.e., as causal adjuncts), while, from the first Romance testimony (Dardel 1983: 199–201), *quare/car* generally equates with an explicative causal, proximate to a coordinating conjunction. Documentation of the intermediate stages of this process is missing from the texts.

(14) Vulg. *Ios*. 10,4: *ferte praesidium, ut expugnemus Gabaon,* ***quare*** *transfugerit ad Iosue et ad filios Israhel*
‘give me help for an attack on Gibeon, since it had concluded peace with Joshua and the Israelites’

In conclusion, in accordance with its origin and grammaticalization as a causal conjunction, *quia* has causal meaning exclusively, in contrast with the semantic ambiguity and syntactic multifunctionality of *quod*. This characterization is in consonance with some diachronic and distributional differences between these two conjunctions (cf. Sections 5.2–5.4), which introduce prototypically a causal clause at the adjunct level in Classical Latin.

4.2. Causal conjunctions with a temporal origin

Leaving aside *quod* and *quia*, the origin and the grammaticalization process of the majority of Latin conjunctions which express causal content confirm a general feature of these types of adverbial clauses: the Cause is secondary as regards other semantic relationships between more simple or primary clauses such as those of Time, Place, and Manner. In other words, Cause in Latin, as in the rest of the European languages, is the endpoint of semantic changes, never the starting point.

The time environment is undoubtedly the most illustrative of this process. From a cognitive point of view, it is easy to understand the metonymic process whereby a temporal conjunction slides naturally toward a causal meaning: a temporal circumstance whose realization is previous to or simultaneous with the main event can be reinterpreted as the cause which justified this event: this is the old principle *post hoc ergo propter hoc*.

Thus, certain Latin temporal conjunctions are reinterpreted as causal conjunctions (*quoniam*) or, together with the temporal sense, they develop an explicit causal sense (*quando* or *dum*) or merely contextual (*cum*, *ubi*, *postquam*) at different stages of Latin.

From a typological perspective, the process which is illustrated by the Latin data is perfectly paralleled by the rest of the European languages: the semantic environment of time is the first and most important source for the creation of causal conjunctions (Kortmann 1997a: 197). But not all temporal

content is equally prone to being reinterpreted as causal content: Latin does not document, for example, causal conjunctions which originally express *terminus a quo* (like Eng. *since*, Fr. *du moment que*, It. *dacché*, *dal momento che*, Port. *desde que*, Rum. *din moment que*, etc.), but are limited to the relationships of Simultaneity (*quando*, *dum*) or Anteriority (*quoniam*).[16]

Finally, it is important to point out that the causal conjunctions with temporal origin generally express a specific type of causality, at least in the archaic and classical periods: they appear at the level of disjuncts, as propositional and illocutionary satellites. The same occurs in Classical Greek (Rijksbaron 1976) with conjunctions such as ἐπεί and ἐπειδή, and in modern languages, with monofunctional causal conjunctions which have a temporal origin, such as Fr. *puisque*, It. *poiché* Span. *ya que*, Eng. *since*, and so on.

4.2.1. Quoniam, quando, dum

Quoniam, in Classical Latin (16), exclusively expresses causal content ('since'), even though in the archaic period (15) this still coexisted with its original temporal sense (< **quom* + *iam*). In fact, *quoniam* expresses a temporal circumstance at origin ('as soon as, after'), before the main event, which has effectively taken place and is known by the interlocutor, and is transformed into a causal conjunction ('now that' > 'since') while the adverb *iam* strengthens the thematic nature of the *quoniam* clause: the causal event is understood as factual and presupposed. These features are in accord with the type of causal clause (disjuncts) which is prototypically introduced by *quoniam*.

(15) Plaut. *Men*. 481–482: ***quoniam*** *sentio / errare, extemplo … coepi adsentari*
'as soon as I saw she was making a mistake, I at once began to agree with her'

16. In the case of Classical Greek, the common feature shared by all the temporal conjunctions (ἐπεί, ἐπειδή, ὅτε, ὁπότε) which also have causal value is that of Anteriority (de la Villa 1989: 43–45). In the end, these types of temporal clauses share with causal clauses the fact that they imply that the dependent state of affairs is factual (Cristofaro 2003: 161).

(16) = (2b) Cic. *Catil.* 3,29: *uos, Quirites,* ***quoniam*** *iam nox est, … in uestra tecta discedite*
'you, citizens, since it is now night, depart for your homes'

However, the causal meaning of *quando*, although it is similar to that of *quoniam* ('since'),[17] coexists throughout all periods of Latin with its original temporal sense ('at which time, when'), which lasts into Late Latin and the Romance languages.[18] Frequently, especially in the finer literary registers (17), the causal sense of *quando* is more explicit in the compound form *quandoquidem* (18), as this particle strengthens the assertive and factual character of the subordinate clause. Thus, in Archaic and Classical Latin it introduces causal clauses at the level of disjuncts.[19]

In the case of *dum* ('as long as, while'), the causal meaning in the classical period is a mere contextual realization, but in Late Latin it appears relatively frequently as in (19) in contexts which are characteristic of *quod* and *quia*.[20]

17. It is not possible to state that *quando*(*quidem*) and *quoniam* are absolutely synonymous: besides the difference in their frequency of use (Mellet 1994: 208–209), *quando* has greater semantic ambivalence (causal and temporal) and its causal use seems to be more restricted than that of *quoniam* (Mellet 1995: 212–220): *quando* and *quandoquidem* appear to be excluded from metadiscourse argumentation so that the speaker explains the organization of his discourse, as in (49), or when a specific speech act (order, question, etc.) is justified, as in (2b). In any case, these differences are not strict: it is possible to find examples, both of metadiscourse uses of *quando* (Caes. *Gall.* 6,11,1) and of the justification of an illocutionary act (Plaut. *Merc.* 180). In the absence of wider research, it is only possible to talk of tendencies and differences of use among authors.
18. Cf. Sp. *cuando*, It. *quando*, Fr. *quand*. The semantic ambivalence of *quando* is also maintained in the Romance languages, although it is not possible to speak of the inheritance or continuity of the Latin data, but rather parallel developments: the temporal use is always the primary and fundamental use, while the causal sense is developed later as a metonymic extension and, in many cases, this secondary sense completely conceals the original temporal meaning (Dardel 1983: 133).
19. However, in post-Classical and Late Latin, as occurs with *quoniam* (Section 6.2), *quando* can also appear as a causal adjunct, in contexts which are typical of *quod* and *quia*. Cf., for example, Gell. 16,10,4: ***eo maxime*** *… te dicere hoc oportet,* ***quando****, ut praedicas, peritus iuris es* 'that is the reason you in particular ought to explain this, because, as you declare, you are skilled in civil law'.
20. Cf. Poirier (2001). The greater frequency of *dum* (especially with the subjunctive) in Late Latin could have contributed to the fact that *dum* was frequently confused with *cum* at that time and invaded quite a few of its contexts of use (Hermann 1963: 60).

(17) Sall. *Iug.* 110,7: *id omitto, **quando** uobis ita placet*
'I now stop it, since it is your wish'

(18) Plaut. *Merc.* 180: *eloquar, **quandoquidem** me oras*
'well, I'll say it, since you're so insistent'

(19) Aug. *serm.* 69,2,3: *multi enim **propterea** mala faciunt, **dum** putant quod non uideantur a Deo*
'many act badly for this reason, because they think God doesn't see them'

4.2.2. Cum*,* ubi*,* postquam

In fact, Latin grammars also include other temporal conjunctions as causal subordinators (*cum* + indicative, *ubi* 'when', or *postquam* 'after') in the classical period; however, in these the causal meaning is a contextual fact, the result of a pragmatic inference.[21] In examples such as (20)–(22), the temporal sense is not excluded but is rather enriched, contextually, with a secondary causal notion:

(20) Plaut. *Amph.* 681–682: *et **quom** [te] grauidam . . . / aspicio, gaudeo*
'and when I see you pregnant, I rejoice'

(21) Plaut. *Pseud.* 1119–1120: *uerum **ubi** is non uenit nec uocat, / uenio huc ultro, ut sicam quid rei si*[*e*]*t*
'but now that he neither came nor called me, I've come here uncalled to find out what the matter is'

(22) Ter. *Ad.* prol. 1–4: ***postquam** poeta sensit scripturam suam / ab iniquis obseruari / . . . / indicio de se ipse erit*
'our playwright, since his companion is unfairly criticized, will give evidence in his own case'

21. The hypothesis (cf. Meyer-Lübke 1899: 612 or Ernout & Thomas 1953: 350) that the Romance causal conjunctions It. *poiché*, Fr. *puisque*, Sp. *pues que* or Port. *pois que* derive from a Latin causal *postquam* does not seem possible. On the one hand, there is no testimony that Latin grammaticalized *postquam* as a causal conjunction. On the other hand, in the most ancient attestations of these Romance forms (*puisque, pues que,* etc.), the temporal sense is the first to be documented and the causal sense is always secondary or derived. Therefore, these are parallel processes rather than a strict continuance of Latin in the Romance languages.

The case of sentences with *cum* plus the subjunctive is different: the causal interpretation of examples like (23) is not due so much to a metonymic process ('when' > 'because') but to the semantic indeterminacy of these types of subordinate clauses which express circumstances accompanying the main event, circumstances which can sometimes be reinterpreted as causal clauses from the pragmatic and linguistic context. Thus, the causal interpretation is prevalent, as also happens in relative clauses or participles with causal characteristics, due to the presence of certain adverbs or discourse particles such as *praesertim*, *praecipue* 'especially', 'peculiarly' (23b), *quippe* or *utpote* 'of course', 'as is natural'.

(23) a. Nep. *Hann.* 10,4: *dolo erat pugnandum,* ***cum*** *par non* ***esset*** *armis*
'it was necessary to fight by deceit, since he was unequal in arms'

b. Caes. *Gall.* 1,16,6: ***praesertim cum*** *magna ex parte eorum precibus adductus bellum susceperit, multo etiam grauius quod sit destitutus queritur*
'and just because he had undertaken the war largely in response to their entreaties, he complained the more severely of their desertion'

4.3. Causal conjunctions with origins in manner

In European languages, the subordinators which express manner relationships are the second most common source or origin of causal conjunctions (Kortmann 1997b: 222). Again Latin seems to confirm this general tendency to ignore the description of the grammars:[22] *ut* + indicative, *sicut*, *tamquam*,

22. Cf., e.g., Hofmann & Szantyr (1965: 597, 635, 647–648, 650, 675) and Ernout & Thomas (1953: 350). *Qua* can also be added to this list as it occasionally has a "komparativ-kausale" meaning (Löfstedt 1911: 125; Herman 1963: 68) in Late Latin (normally followed by a participle or a noun), which can also contribute to the phonetic confusion *quia* = *qua*.

quasi or *quomodo* are manner conjunctions ('as') which can acquire a causal meaning.

However, until this late period, examples like (24) show that, in the majority of the cases, this is a question of contextual causal sense which is superimposed and enriches the original manner content. The only exception is constituted by some examples of *ut* + indicative such as (25), where the manner sense seems to be neutralized (the two events do not have characteristics which can be related qualitatively) and *ut* expresses a semantically indeterminate circumstance (as in *cum* + subjuntive) which the context orients toward an explicative reason.

(24) a. Quint. *inst.* 9,4,53: *at Cicero frequentissime dicit totum hoc constare numeris, ideoque reprehenditur a quibusdam* ***tamquam*** *orationem ad rhythmos alliget*
'Cicero indeed frequently asserts that the whole art of prose structure consists of rhythm and is consequently censured by some critics on the ground that he would fetter our style by the laws of rhythm'

b. Sen. *dial.* 7,19,2: *expedit enim uobis neminem uideri bonum, quasi aliena uirtus exprobratio delictorum omnium sit*
'for you find it to your interest that no man should appear to be good, as though virtue in another casts reproach upon the shortcomings of all of you'

(25) Caes. *Gall.* 6,7,7: *celeriter haec ad hostes deferuntur,* ***ut*** *ex magno Gallorum equitum numero nonnullos Gallicis rebus fauere natura cogebat*
'this information was speedily carried to the enemy, for of a large number of Gaulish horsemen natural feeling would compel some, as Gauls, to favor the Gaulish cause'

The situation is qualitatively different in Late Latin. In this period, *quomodo* acquires the sense of causal subordinator at disjunct level, among many other senses (Herman 1957; 1963: 43–44, 58–59, 66, 121), in a process which is parallel to the process undergone by the manner conjunction *como* in the Romance languages (26).

(26) Itala, *apoc.* 21,5 (Vulg. = *quia*): *et dicit: 'scribe,* ***quomodo*** *haec uerba fidelissima sunt et uera'*
'then he said, "Write these matters down, for the words are trustworthy and true"'

4.4. Causal conjunctions, finals, and quantifiers

Unlike other European languages,[23] Latin has hardly any examples of final conjunctions also used as causal conjunctions unless this is the origin (Hofmann & Szantyr 1965: 647–648) of the specific use of *ut* + subjunctive with causal value, as in (27), examples limited to Late Latin (Fridh 1977), a period in which interference between the senses and functions of *ut* and *quod* are frequent. Precisely these causal uses of *ut* + subjunctive appear in contexts which are characteristic of *quod* and *quia* as causal adjuncts, not as disjuncts.

(27) Itala, *Matth.* 13,13 (= Vulg. *quia*): ***ideo*** *in parabolis loquor eis,* ***ut*** *uidentes non uident et audientes non audiunt neque intellegunt*
'I use parables when I speak to them because they look but do not see, they listen but do not hear or understand'

The use of quantifiers, such as the English *inasmuch as* or *inasfar as*, as causal conjunctions which express a reason or motivation for the judgment expressed in the main clause is also exceptional in Latin. The clearest example of this relationship between quantifiers and causal conjunctions in Latin[24] is *quatenus* (Hofmann & Szantyr 1965: 655–656): from its original interrogative-place meaning ('to what point in space? how far?') and then its

23. Examples are Sp. and Port. *porque*, Cat. and It. *perqué, perché*, Rum. *pentru că*, Class. Gk. ὡς, Eng. *(be)cause (that), for (that),* etc. as conjunctions which express cause and finality.
24. The form *quandoque* can also be included: besides the temporal meaning, as an adverb (= *aliquando* 'some day') or conjunction (= *quandocumque* 'at whatever time, whenever'), exceptionally it has (Kühner & Stegmann 1914: 384; Hofmann & Szantyr 1965: 608) a use with a causal sense ('inasmuch as, since') and this is restricted to specific examples of Cicero (*Verr.* II 3,187; *Caecin.* 54) and Livy (1,32,12; 8,7,15; 9,10,9) which always appear in quotes or expressions which have an archaic flavor.

temporal meaning ('how long?'), it exceptionally acquired a causal acceptance ('to the extent to which' > 'inasmuch as, since'). The process which is noted in Lucretius (3,412–414) becomes especially evident in Late Latin (28):

(28) Tert. *adv. Prax*. 17,2: ***quatenus*** *ita scripturae docent, haec dicimus*
'we say this since/insofar as their writings show it'

5. Distributional properties of *quod-quia* vs. *quoniam*

As was pointed out above, in Archaic and Classical Latin *quod* and *quia* prototypically introduce clauses at the representative level, integrated syntactically as adjuncts, which express the cause or reason which gives rise to, or makes possible, the event expressed in the main clause, as opposed to *quoniam* and those conjunctions (*quando*, *ut* + indicative, *quomodo*, *quatenus*, etc.) which, as disjuncts, express a causal relationship at a presentational or illocutionary level.

Distributional properties show the validity of this characterization, and these properties coincide to a large extent with the criteria used in numerous studies of other languages to distinguish whether the two types of causal clauses established in Section 2, *quod* and *quia*, coordinate with each other or with the means of expressing a causal adjunct in Latin (Section 5.1); whether they introduce the response to a causal interrogative (Section 5.2); whether they are related anaphorically or cataphorically with correlative causal conjunctions such as *ideo*, *eo*, *idcirco* ('therefore') (Section 5.3); whether they can be focalized in different ways (Section 5.4); whether they can introduce embedded predications functioning as arguments (Section 5.5); whether they are within the scope of the illocutionary force and of the negation of the main clause (Section 5.6); whether they exclude the use of the subjunctive in specific pragmatic contexts (Section 5.7); whether they are affected by the *consecutio temporum* to a greater extent than *quoniam* (Section 5.8); and whether their position with regard to their main clauses (normally postposed) is partly different from that of *quoniam* clauses (Section 5.9).

These distributional properties are shown to be pertinent in Latin, at least for the archaic and classical periods. This is described in more detail and

from a diachronic point of view (post-Classical and Late Latin) in Section 6. Some of these characteristics (Sections 5.2, 5.3, 5.5, and 5.9) also allow the establishment of differences between *quod* and *quia*, which are in agreement with their different grammaticalization processes as causal conjunctions.

5.1. Possibilities of coordination

One obvious proof that *quod* and *quia* are at the same syntactic level and express the same semantic relationship is the fact that they can be coordinated with each other, as in (29), or with other means for expressing a causal adjunct,[25] such as an ablative in (30), *propter* + acc. in (31), and so on, possibilities of coordination which are excluded in the case of *quoniam*. On the contrary, when *quoniam* appears in the same phrase as *quod* or *quia,* it is clearly on a different syntactic level (32).

(29) Cic. *S. Rosc.* 145: *praedia mea tu possides, ego aliena misericordia uiuo; concedo,* ***et quod*** *animus aequus est* ***et quia*** *necesse est*
'you possess my farms; I am living on the charity of others; I yield not only because I am resigned to it but because I must'

(30) Liv. 32,4,5: *nec* ***altitudine*** *solum tuta urbs* ***sed quod*** *saxo undique absciso rupibus imposita est*
'the city is defended both by its lofty site and by the fact that it lies on cliffs with steep descents on all sides'

(31) Sall. *Iug.* 89,6: *eius potiundi Marium maxuma cupido inuaserat,* ***quom propter*** *usum belli,* ***tum quia*** *res aspera uidebatur*
'Marius was inspired with a great desire of taking this town, not only from its military importance, but because the undertaking seemed hazardous'

25. *Quod* and *quia* can also be coordinated with a final clause with *ut*/*quo* + subjunctive. This is not the only characteristic shared by final and causal clauses: a final clause can be introduced as the response to a causal question or have causal correlatives such as *ideo* or *idcirco* (examples in Torrego 1988). Cf. Cabrillana (this volume).

(32) Plin. *nat.* 31,35: *Parthorum reges ex ⟨Ch⟩oaspe et Eulaeo tantum bibunt . . . sed horum placere,* ***non quia*** *sint amnes, apparet,* ***quoniam*** *neque e Tigri neque Euphrate neque e multis aliis bibunt*
'the kings of Parthia drink only of the Cloaspes and the Eulaeus . . . ; but it is clear that the water of these rivers does not find favor just because they are rivers, for the kings do not drink from the Tigris, Euphrates, or many other rivers'

5.2. Answer to a causal interrogative

Unlike *quoniam* or *quando*, the conjunctions *quod* and *quia* can respond to *why*-questions, which proves their greater degree of syntactic integration into the main clause; in such cases, the speaker does not take for granted or consider that the causal relationship between the two events is known; therefore it is possible to ask about this relationship. The conjunction par excellence in this context is *quia* (33), which is undoubtedly justified by its origin and by being the most unambiguous causal conjunction: a direct question on a specific semantic relationship is responded to, in principle, with the most explicit mark of this relationship. There is no documentary evidence of *quod* in this context in Archaic Latin, and it is exceptional in the classical period ((34); Mellet 1994: 215).

(33) Plaut. *Amph.* 687: ***qur*** *negas?* :: ***Quia*** *uera didici dicere*
'what makes you deny it? :: Because I have learned to tell the truth

(34) OCTAVIA 863–864: ***cur*** *meam damnas fidem? /* :: ***Quod*** *parcis hosti*
'why don't you condemn my faith? :: Because you spare my enemy'

5.3. Use of correlatives

Correlatives such as *eo*, *ideo*, *propterea*, *idcirco*, *ob eam rem*, and others ('therefore, for that reason'), are frequently used with *quod* (35) and *quia* (36), but not with *quoniam*. From a pragmatic point of view, these correlatives usually involve the focalization of the causal clause, especially when they precede it; syntactically they confirm the syntactic integration of these

subordinates as they indicate the function corresponding to them within their main clauses (35)–(36).

(35) Plaut. *Asin.* 622: *equidem hercle nullum* [*patronum*] *perdidi,* ***ideo quia*** *numquam ullum habui*
'by Hercules! I after all have not lost any patron, precisely because I have never had one'

(36) Cic. *prov.* 6: *nec haec* **idcirco** *omitto* **quod** *non grauissima sint,* ***sed quia*** *nunc sine teste dico*
'if I omit these matters, it is not because they are most serious, but because at the time of speaking I have no witnesses'

Two fundamental facts should be pointed out in this regard: the difference in frequency and the variety of correlatives with *quod* and *quia*, and therefore the importance of these types of contexts in order to understand the renovation of the causal conjunctions in Late Latin and their continuation in the Romance languages.

In fact, the data clearly show that the frequency of a causal correlative is, from the classical period on, much greater with *quod* than with *quia*, which is in accordance with the grammaticalization process of *quod* as a conjunction, and its use as a relative and in correlative structures (Section 4.1.1); however, given the much more blurred semantic content of *quod*, the use of these correlatives serves to make their causal sense clearly more explicit. The frequency of use of causal *quod* with correlatives increases in Late Latin and ends up structuring conjunctional locutions (*eo quod*, *pro eo quod*, *pro quod*) which are the origin of some of the causal conjunctions of the Romance languages (Section 6.3 below).

5.4. *Quod* and *quia* as complementizers

The causal clauses of *quod* and *quia* are syntactically integrated into the main clause usually as satellites – that is, as optional complements. However, certain verbs seem to require *quod* and *quia* clauses as arguments or sentential complements. This fact is especially evident in Late Latin, where both

quod and *quia* are used as complementizers in syntactic contexts characteristic of an *Accusativus cum Infinitivo*, such as *scio/dico quod* … 'I know/say that … ').

However, in the case of *quod* and *quia*, this process is already in progress in Archaic and Classical Latin. The most important context is that which follows *verba affectuum* or verbs of feeling such as *gaudeo, queror, doleo*, and so on, which have both *Accusativus cum Infinitivo* (the most frequent form) and *quod* and *quia* clauses as sentence complements.[26] Examples of *variatio* such as (37) or of coordination between *Accusativus cum Infinitivo* and a *quod* clause (38) would prove the complementizer nature of the conjunction.

(37) Ov. *met.* 8,44–45: '*laeter', ait, '**doleam**ne **geri** lacrimabile bellum, / in dubio est; **doleo, quod** Minos hostis amanti est'*
' "whether I should rejoice," he said, "or grieve at this woeful war, I cannot tell. I grieve because Minos is the foe of the one who loves him" '

(38) Liv. 31,18,2: *qui* (*M. Aemilius*) ***questus*** *Attalo Rhodiisque* ***arma inlata et quod*** *tum maxime Abydum* ***oppugnaret***
'M. Aemilius protested against the attack on Attalus and the Rhodians, and because Philip was at that very moment besieging Abydus'

Although studies of sentential complementation after *verba affectuum* usually also combine this with studies of *quod/quia* clauses (*quoniam* does not appear in this context), there are significant differences between the two conjunctions, both as regards frequency of use (*quia* is exceptional in this context),[27] and as regards their syntactic and semantic characterization. The

26. A summary of some of the more important studies of this type of alternation can be found in Cuzzolin (1994; 1995). This author analyzes the use of *quod-quia* after *verba affectuum* within the general process of the replacement of the *Accusativus cum Infinitivo* by a conjunctional subordinate clause; a gradual process which initiates in factual verbs (such as the *verba affectuum*) until it progressively reaches assertive verbs (such as *dico*).

27. Data in Cuzzolin (1994: 135–187). It might be thought that this is a typical characteristic of Archaic Colloquial Latin, as the examples of *quia* appear exclusively in Plautus and Terence (4 examples) and in the letters of Cicero (2 examples). In any case, the causal sense of *quia* continues to be evident: it is simply a matter of the cause and the object of the feeling coinciding in the context.

convergence of *quod* and *quia* in this context is explained by the specific sense of each conjunction and by the semantic characteristics of the *verba affectuum*. In fact, the embedded predication with *verba affectuum* contains information presented by the speaker as presupposed to be true (Bolkestein 1989: 19). The factivity is precisely the characteristic which is common in the different conjunctional uses of *quod* (Section 4.1) and which also justifies the presence of *quod* as a complementizer with verbs such as *accidit/euenit/fit* ('there occurred the fact that') or *addo/mitto/praetereo* ('add/omit the fact that').

However, *quia* as an unambiguous causal conjunction does not appear with verbs such as *accidit* or *addo,* but it does with *verba affectuum* such as *gaudeo*, *doleo*, and others as in (39), in which the cause can be understood as the object of the feeling, and it is this pragmatic inference which leads us to consider *quia* in these cases to be a complementizer:

(39) Cic. *Att*. 10,3a,2: ... *secum Titinium et Seruium* ***questos esse quia*** *non idem sibi quod mihi remisisset*
'... that Titinius and Servius have complained to him for not allowing them the same privilege as he did to me'

5.5. Focalization

From a pragmatic point of view, the *quoniam* clauses, insofar as they express content already given and presupposed, do not provide focal or new information. However, the causal clauses introduced by *quod* and *quia* can be focalized through many different procedures, some of which have already appeared in the examples: interrogation ((33)–(34)), the coordination structures of the *cum* ... *tum* (31) or *et* ... *et* (29) type, corrective structures of the *non quod* ... *sed quia* (44) type, the use of correlatives (35), or comparative structures of the *magis quod (quia)* ... *quam quod (quia)* ..., or *non tam quod* ... *quam quod* type, as in (40), in which the speaker establishes an evaluation or prevalence with regard to different causes. These focalized examples can also be paraphrased through cleft constructions (Dik 1997b: 291–330), as in (41):

(40) Liv. 25,27,8: *timentem nauale proelium,* ***non tam quod*** *impar uiribus . . . esset,* ***quam quod*** *uenti aptiores Romanae quam suae classi flarent*
'(Bomilcar) feared a naval battle, not so much because he was inferior in his forces as because the winds then blowing were more favorable to the Roman fleet than to his own'

(41) Sen. *dial.* 7,12,5: ***hoc est cur*** *ista uoluptatis laudatio perniciosa sit,* ***quia*** *honesta praecepta intra latent, quod corrumpit apparet*
'the reason why your praise of pleasure is pernicious is because what is honorable in your teaching lies hidden within, what corrupts is plainly visible'

5.6. Scope of illocutionary force and of negation

Due to their status as adjuncts, the causal clauses with *quod* and *quia* are affected by the modality or illocutionary force (declarative, interrogative, imperative) of their main clauses and cannot be separated from these, which is just the opposite in illocutionary causal clauses with *quoniam*. The example of the interrogative modality can serve to illustrate this difference: in (42) the *quia* clause shares the illocutionary force (interrogative) of its main clause, but this does not occur in the case of the *quoniam* clause of (43). Moreover, causal clauses with *quod-quia* can be within the scope of the negation, as in (32) above; thus the subordinate clause is construed with the subjunctive. Therefore, a cause can be negated (in the subjunctive) and another affirmed (in the indicative) through the structure *non quod (quia) . . . sed quod (quia)*, as in (44):

(42) Plaut. *Amph.* 52–53: *quid? Contraxistis frontem* ***quia*** *tragoediam / dixi futuram hanc*?
'what? Frowning because I said this was to be a tragedy?

(43) Cic. *dom.* 93: *et* ***quoniam*** *hoc reprehendis, quod solere me dicas de me ipso gloriosius praedicare, quis umquam audiuit cum ego de me nisi coactus ac necessario dicerem*
'and since you blame me for being too boastful in singing my own

praises, who, I would ask you, has ever heard me speak of myself, save under the constraint of an inevitable necessity'

(44) Cic. *Tusc.* 2,56: *pugiles uero, etiam cum feriunt aduersarium, in iactandis caestibus ingemescunt,* ***non quod doleant*** *. . . ,* ***sed quia*** *profundenda uoce omne corpus* ***intenditur***
'the boxers in fact, at the moment of striking their opponent, groan in the act of swinging their gauntlets, not because they feel pain, but because by the burst of sound the whole body is made more tense'

5.7. Use of the subjunctive

The use of moods is another differentiating criterion. While *quoniam* is always associated with the indicative (except in indirect discourse and in cases of mood attraction) to express a fact which is verified and presupposed to be certain, the causal conjunctions *quod* and *quia*, which are usually constructed in the indicative, do not exclude the subjunctive[28] in specific pragmatic contexts in order to indicate that the speaker is not committed to the truth of the subordinate proposition. This lack of commitment is shown in very different ways: the speaker (45) or the writer (46) can distance themselves from an alleged cause by the subject of the main clause or by another person (*oratio obliqua*); question their own opinion; or indicate, as occurs in (47), that it is not a question of "*the* cause" but of one among many possible reasons which explain or justify the consequence expressed in the main clause. The most frequent context in which the subjunctive is used is when the relationship of causality appears in the negative or, to be more precise, the relationship of causality between the content of the subordinated clause and that of the main

28. The use of mood does not constitute a strict criterion for differentiating between *quod* and *quia*. It is too simple to establish (Fugier 1989: 97–98) an opposition of the subjunctive (*quod*) vs. indicative (*quia*): the data show that *quia* can appear in the same mood contexts as *quod*, although it is true that, in certain authors, *quod* is the conjunction which is used more frequently with the subjunctive.

clause is negated. In such cases, besides *non quod* (44) or *non quia* (32), the causal clause can be introduced by *non quo* or *non quin* (with the subjuntive), and another more probable cause can be placed in opposition to the cause excluded through *sed (quod/quia)* with the indicative, as in (48):

(45) Plaut. *Cist.* 101–102: *nunc mea mater iratast mihi, **quia** non **redierim** domum ad se*
'and now my mother is angry with me because I didn't go back home to her'

(46) Cic. *Tusc.* 4,44: *noctu ambulabat in publico Themistocles, **quod** somnum capere non **posset***
'Themistocles walked by night in a public place because he was, he said, unable to sleep'

(47) Cic. *de orat.* 3,52: *nemo enim unquam est oratorem, **quod** Latine **loqueretur**, admiratus*
'for nobody ever admired an orator because he spoke Latin correctly'

(48) Cic. *Att.* 7,26,2: *ego me ducem in ciuili bello … negaui esse, **non quin** rectum esset **sed quia,** quod multo rectius fuit, id mihi fraudem tulit*
'I refused to take a leading part in civil war, not because the war was unjust, but because former action of mine in a still more just cause did me harm'

5.8. The *consecutio temporum*

The *consecutio temporum* or sequence of tenses is a type of temporal anaphora between two clauses; therefore, it is an interlacing mechanism to the extent that one category of the subordinate clause is partly or wholly determined by the main clause (Lehmann 1989: 167–168). From this perspective it is easy to understand that the causal conjunctions *quod* and *quia* can be more affected by *consecutio temporum* than *quoniam* clauses as they are syntactically integrated as adjuncts. The time of a sentence with a *quoniam* clause is usually constructed, however, in relation to the time of speaking

and expressing; the time is absolute. It is not by chance that *quoniam* appears in narrative texts associated preferably with the perfect tense, while *quia* and, especially, *quod* prefer the imperfect or pluperfect tenses (data from Mellet 1988: 260). The perfect tense generally situates the state of affairs of the subordinate clause with respect to time of the utterance (the *hic et nunc* of the author), while the imperfect and, especially, the pluperfect are anaphoric and require a previous temporal reference in the past. Thus, in (49), the *quoniam* clause, in the perfect tense, indicates a direct intervention of the author in the narration, unlike the strict *consecutio temporum* of *quia*, pluperfect indicative, as in (1a), or of *quod* with imperfect subjunctive as in (46):

(49) Caes. *Gall.* 6,11,1: ***quoniam*** *ad hunc locum* ***peruentum*** *est, non alienum esse uidetur de Galliae Germaniaeque moribus … proponere*
'since I have arrived at this point, it would seem to be not inappropiate to set forth the customs of Gaul and of Germany'

5.9. Word order

The prototypical word order of each semantic type of causal clause is, in principle, iconic. The causal adjuncts (Eng. *because*, Fr. *parce que*, Sp. *porque*, etc.) contribute rhematic information, and therefore they have a tendency to follow the main clause. However, the causal disjuncts (*since, puisque*, *ya que*) tend to precede their main clauses, as they provide information which is already known or presupposed. In any case, in the particular analyses of each language (and of each conjunction), these general tendencies are subject to clarification: an unmarked order can be modified depending on the communicative strategies of the speaker.

In the case of Latin, the usual description consists of stating (Fugier 1989: 114–115) that *quia* and especially *quod* usually have the subordinate in postposition to the main clause, while *quoniam* clauses precede their main clauses as a consequence of their different semantic and pragmatic nature. However, these generalizations are subject to much clarification and to syntactic (between authors and between literary genres) and diachronic differences.

Although a more complete study of this matter is required, the data show[29] that in the case of *quod*, the almost constant position of the causal clause is after its main clause, and this characteristic is maintained with no significant differences until the Late Latin period. However, in the case of *quia*, although it seems to show a clear tendency to appear after the main clause, the frequency of preposed examples is sufficiently significant as to not be explicable for pragmatic reasons (focalization of the causal clause). As we shall see (Section 6.1), from the classical period on, *quia* began to appear as a causal disjunct too – that is, in contexts characteristic of *quoniam* – and this assimilation is logically reflected in the (preposed) order of certain *quia* clauses.

In the case of *quoniam*, the data do not seem to confirm the idea that its constant position is preposed to its main clause: a comparison of the philosophical prose of Cicero and Seneca shows that, while the preposing of *quoniam* is normal in Cicero (72 %), in Seneca the opposite is true: in 66 % of the examples the *quoniam* clause is postposed to its main clause. Bolkestein (1991: 436–437) places this in relation to the historical tendency of Latin subordinates to be progressively located after their main clauses, but this does not seem to be the only or the fundamental reason. As a causal disjunct, *quoniam* introduces different semantic types; compare (2a) and (2b), which are reflected in the word order.[30] Moreover, *quoniam* will be progressively used in contexts which are characteristic of *quod* and *quia* – that is, as a causal adjunct – therefore, it is postposed to its main clause (Section 6.2).

29. Partial data in Bolkestein (1991: 437) and Mellet (1995: 219–220) on Plautus, Terence, Lucretius, Cicero, and Seneca.
30. The position of the *quoniam* clause may vary depending on the type of causal disjuncts which they express and the level at which they are inserted: as propositional satellite, as in (2a), the *quoniam* clause appears postposed to its main clause; however, when the *quoniam* clauses are integrated at utterance level as illocutionary satellites (the speaker justifies a specific speech act, provides information on the organization of his narrative, etc.) the *quoniam* clause usually appears preposed.

6. Diachronic interferences and changes

The distributional properties which have been commented on above contribute to establishing a gradual opposition between *quod* and *quia*, on the one hand, and *quoniam* and the rest of the conjunctions, on the other hand, which are usually constructed as causal disjuncts (*quando*, *ut* + indic., *quomodo*, etc.), for the interferences between these conjunctions are frequent, especially in post-Classical and Late Latin. Thus there are three fundamental changes which affect the causal conjunctions:

(i) From the period of Archaic Latin on, the conjunction *quia* progressively invaded contexts characteristic of *quoniam*; that is, it can appear as a causal disjunct (Section 6.1).

(ii) Parallel to this, especially from the 1st century CE on, the conjunction *quoniam* began to be used as a causal adjunct; that is, it appears in the same contexts as *quod* and *quia* (Section 6.2).

(iii) *Quod*, converted into a quasi-universal conjunction in Late Latin, ended up having its causal sense replaced by conjunctive locutions: *eo quod*, *pro eo quod*, *pro quod* (Section 6.3).

6.1. *Quia* instead of *quoniam*

In those languages which formally distinguish the two types of causal clauses (adjuncts vs. disjuncts), established in Section 2, it is frequent that the conjunction which is most unambiguously causal (*because*, *weil*, *porque*) appears as an adjunct and also as a causal disjunct (Schiffrin 1987: 202). The same happened with *quia* in Latin:[31] the conjunction *quia* progressively invaded contexts which were characteristic of *quoniam*; that is, it can appear as a causal disjunct. Thus, *quia* appears as coordinated with *quoniam* in (50), justifies a speech act in (51), or expresses the validity of the propositional content of the main clause in (52):

31. Fugier (1989: 99) also points out the possibility that in specific examples (such as Cic. *de orat*. 1,168) a *quod* clause can be understood to be an explicative causal (as proposition satellite). During a partial search in Cicero (*Mil.*) and Caesar (*Gall.*), I found no examples of *quod*-causal as an illocutionary satellite.

(50) Cic. *inv.* 2,168: *amicitiarum autem ratio,* ***quoniam*** *partim sunt religionibus iunctae, partim non sunt,* ***et quia*** *partim ueteres sunt, partim nouae, … ex temporum opportunitatibus … habebitur*
'but since some friendships are related to religious scruples, and some not, and some are old and some new, an examination of their nature will involve a consideration of the suitableness of times and occasions'

(51) Sen. *benef.* 5,1,2: *uerum,* ***quia*** *ita uis, perseueremus …*
'since, however, such is your wish, let us continue …'

(52) Sen. *clem.* 2,4,1: *ergo* [*sapiens*] *non miseretur,* ***quia*** *id sine miseria animi non fit*
'he [the wise man], consequently, will not suffer pity, because there cannot be pity without mental suffering'

This proximity of *quia* to *quoniam*, which can already be seen in Archaic Latin (Mellet 1995: 226) becomes stronger especially in Late Latin, where occasionally (Hofmann & Szantyr 1965: 586) its value as an adverbial subordinator is so weak that it seems to be more similar to a connector such as *nam* ('for'). Even in those Romance languages in which *quia* continues (in the form *ca, ka*), such as Portuguese, Spanish, Sardinian, some Italian dialects, and Rumanian, it fundamentally introduces epistemic and illocutionary causal clauses (Dardel 1983: 183–185), which shows the importance of this evolution.

6.2. *Quoniam* instead of *quia*

Parallel to this, especially from the 1st century CE on, *quoniam* began to be used as a causal adjunct; that is, it appears in the same contexts as *quia* (and *quod*) in the classical period. This change appears to be restricted at the beginning to authors who were not among the finest on the literary scene, such as Celsus, Columella, and Pliny the Elder (Tarriño 2004), and there are no restrictions from the 2nd century CE on, so that examples of *quoniam* are documented as causal adjuncts in all the contexts we have seen in Classical Latin (Section 5) which are characteristic of *quod/quia*: interrogation (53), coordination (54), use as correlatives and focalization (55), and so on.

(53) Suet. *Iul.* 74,2: *interrogatusque,* ***cur*** *igitur repudiasset uxorem: '****quoniam****,' inquit, 'meos tam suspicione quam crimine iudico carere oportere'*
'and on being asked why it was then that he had put away his wife, he replied: "because I maintain that the members of my family should be free from suspicion, as well as from accusation" '

(54) Phaedr. 1,2,7–10: *cum tristem seruitutem flerent Attici /* ***non quia*** *crudelis ille,* ***sed quoniam*** *graue / omne insuetis onus, … / Aesopus talem tum fabellam rettulit*
'the Athenians now bewailed their dismal state of servitude, not because he (Pisistratus) was cruel but because they were not accustomed to it'

(55) Plin. *nat.* 32,34: ***eo magis*** *hoc mirum,* ***quoniam*** *totius tegimenti farina accendere traditur libidinem*
'this is all the more surprising for this reason, because the whole shell, reduced to powder, is said to incite one to lust'

In this process of restructuring the causal conjunctions, *quoniam* appears as the weakest form in the system, and its use as a causal conjunction diminishes from the 3rd century CE on. From the Classical Latin period on, *quia* occurred alongside *quoniam* in contexts which were typical of *quoniam*, as in (50)–(52). Moreover, the use of *quoniam* as a causal adjunct, as in (53)–(55), means that, in many cases, it is no different from *quod* and *quia* (it even ends up functioning like a complementizer in Biblical Latin) and therefore loses its distinctive character as a causal disjunct. This lack of difference continues and becomes more pronounced in Late Latin, although there are noticeable differences depending on author and period. This weakness possibly explains why it did not last into the Romance languages, which use other temporal conjunctional locutions: *pues que*, *ya que*, *puisque*, and so on, instead of *quoniam*.

6.3. *Quod* and *eo quod*, *pro eo quod*, *pro quod*

As is known, *quod* became a quasi-universal conjunction in the late period as it acquired new adverbial senses (final, consecutive, temporal, etc.) and be-

came, especially, a complementizer in contexts which had been characteristic of the *Accusativus cum Infinitivo* until then.[32]

As regards this syntactic and semantic multifunctionality, it is necessary to use correlatives (*eo*, *ideo*, *propterea*, etc.) in order to render the causal sense of *quod* more explicit, less ambiguous. One example can be seen in an author of the 4th century CE, the historian Ammianus Marcellinus, where 70 % of the examples of causal *quod* have a correlative; however, *quia* only has a correlative on one occasion (Roca 1997).

Of all the correlatives, *eo* is the most frequent from the classical period on and becomes a grammaticalized conjunctional locution (*eo quod*) with causal sense, alongside *quod* and *quia*. Its use is frequent, especially in vulgar and Christian authors (Herman 1963: 47–49, 76–77), and it ends up being used as a complementizer (by analogy with *dico quod* or *quia*). Thus, a new locution *pro eo quod* arose in order to clarify, in part, this new functional ambivalence (Salonius 1920: 344).

The grammaticalization of *eo quod* and *pro eo quod* as causal conjunctions proves that they can also present correlatives such as *idcirco, propterea*, and others, as in (56) and (57).

(56) Vulg. *Ezech.* 28,6–7: ***eo quod*** *eleuatum est cor tuum quasi cor Dei,* ***idcirco*** *ecce ego adducam super te alienos robustissimos gentium*
‘**because** you have thought yourself to have the mind of a God, **therefore** I will bring against you foreigners, the most barbarous of nations’

(57) Vulg. *Am.* 5,11: ***idcirco, pro eo quod*** *diripiebatis pauperem, … domos quadro lapide aedificabitis, et non habitabitis in eis*
‘therefore, because you have trampled upon the weak, though you have built houses of hewn stone, you shall not live in them’

The process was enriched and completed with the parallel creation of conjunctive locutions constituted directly by the addition of a causal conjunction to the conjunction *quod*: *propter quod* and, especially, *pro quod.* The locution *propter quod* was already grammaticalized in Biblical texts, as in (58), where

32. Cf. Cuzzolin (1994).

it appears as a variant and in parallel with *eo quod*, but it would end up being replaced by *pro quod* ((59); Norberg 1943: 236).

(58) Vulg. *Iac.* 4,2–3: *et non habetis,* ***propter quod*** *non postulatis. Petitis et non accipitis,* ***eo quod*** *male petatis*
'you do not obtain because you do not ask. You ask and you do not receive because you ask wrongly'

(59) Diosc. 3 (apud Herman 1963: 95): *mellitidina dicunt* ***pro quod*** … *apes manducant*
'they call her *melliditina* because the bees eat her up'

The final consequence of this entire process is that *quod* practically disappeared as a causal conjunction: in a significant sample of Late Latin texts (Herman 1963: 106–108), it is possible to observe a clear prevalence of the causal use of *quod* accompanied by correlatives, while (setting aside its completive use after *dico, scio*, etc.), the ratio of examples of the conjunction *quod* constructed alone and with causal sense is insignificant. *Quia*, however, seems to be more stable as a causal conjunction in Late Latin. Except for its completive use, the multifunctionality of *quia* is much less than that of *quod*; thus it continues to be understood fundamentally as a causal conjunction and even invades the contexts which are proper to *quoniam*, as we have seen (Section 6.1).

In the end, this restructuring of the system of causal conjunctions in Late Latin came about with the creation of conjunctional illocutions such as *eo quod, pro eo quod*, or *pro quod*; this is the seed and the model for quite a few of the causal conjunctions of the Romance languages: *pro co que* (OFr.), *per ciò que* (OItal.), *parce que* (Fr.), and *porque* (Sp.), among others. It is not by chance that all these Romance conjunctions (such as *quod*, *eo quod, pro eo quod*) express the same type of causality; that is, they introduce prototypically subordinated clauses at the level of adjuncts.

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Temporal clauses

1. Time and the temporal clause

1.1. The basic concept of time and the temporal clause

Unlike space, time is not a "material" thing, but, as recent psychological and neurological investigation has shown (summary in Evans 2004; Evans and Green 2006: 75–86), it is perceived as something "real," though not as a holistic phenomenon but rather as a bundle of several distinct components, including *duration* (with highly subjective variants like "protracted duration" and "time compression"), *point in time*, and *temporal relation*. That the participants in communication share or at least have similar concepts of time is a prerequisite for the successful communication of the experience of time – they need a shared *basic time concept*.[1] Following Haspelmath (1997), Klein (2003), and Evans (2004), we can assume the following as the essential components of this time concept:

1. *One-dimensionality* of time and absence of qualities (time is not green, not wide, etc.); segmentability of time into *time spans*.

2. *Linearity*, that is, ordering along the time axis, and *relationality* as the fundamental properties of time spans: the temporal specification of a situation is only possible when it is brought into relation with another situation that serves as a reference point; as with a locational relation, there is a relation between *relatum* and *locatum*.[2] Below we follow Haspelmath (1997: 27–28) in using the term "reference situation" for the concept *relatum*. The following can serve as reference situation: (a) the point in time of speaking, what Klein labels *Origo*, "time of present experience": in this case, the relation is deictic;

1. Cf. Klein (2003: 59): "The successful expression of temporal relations presupposes a shared, or at least a sufficiently similar, concept of time among the interlocutors".
2. The fundamental reference here is Lehmann (1983).

(b) some other particular situation: then the relation is nondeictic (Klein 2003: 65 calls it "anaphoric"). The former is basic, the "ego-based" (Evans 2004) model; the latter is derived, the "time-based" model.

3. Location in time and specifying of time extent as basic *functions* of the time-based model: these are two different methods of specifying the reference time of the main clause[3] – more precisely, of the segment of the main clause situation that is communicatively relevant (what Klein 2003 labels "topic time"; see also Bohnemeyer and Swift 2004: 265–266) – cf. (1), where the temporal clause determines a segment of an atelic main clause situation whose extension beyond the bounds defined by the temporal clause is communicatively irrelevant.

(1) *When I entered the room, a gigantic teddy bear was standing there*

If the main clause is located in time, we follow Haspelmath (1997) in speaking of a "located situation"; if its extent is specified, of a "quantified situation". The fact that a temporal clause can serve as a reference situation presumes that its reference time is already established, which in turn as a rule presumes that the temporal clause is presupposed.[4]

The functions "time location" and "time extent" are accomplished by comparing the positions of located/quantified situation and the reference situation on the time axis with reference to parameters like sequence, inclusion, overlap, co-extension, and so on. The entirety of relations or semantic functions[5] thus arrived at forms the *time network*, one of the four major semantic networks, which constitute the semantic space of adverbial relations, in Kortmann's (1997) sense. The internal structure of the time network is effected by the interaction of *Aktionsart* (in the sense of Vendler's well-known classi-

3. Specifying, not establishing, the reference time is the task of a reference situation, cf. Hamann (1998: 53).
4. Cf. Hamann (1998: 60). This rule is of course not entirely exceptionless, since the reference time of a hypothetical temporal clause can also be adequately specified, e.g., Cic. *Mil.* 28: *profectus id temporis cum iam Clodius, si quidem eo die Romam uenturus erat, redire potuisset* 'he set out at a time when Clodius could already have returned, if he had been planning to come to Rome that day'.
5. We use this term following Pinkster (1984) and Haspelmath (1997: 8), rather than Kortmann's (1997) "temporal interclausal relations".

fication of situations)[6] with tense/aspect and lexical information such as the meaning of the subordinator; this is discussed in Sections 4–6 below.

4. Temporal clauses, the topic of this chapter, belong to the *expression formats* of the "time-based" model. They compete with other expression formats of the reference situation, namely, (a) canonical time spans (natural, such as *evening*, *full moon*, etc., or cultural, such as *year*, *month*, etc.); (b) deverbal and nondeverbal expressions of situation (*after my arrival*, *before the war*, etc.).[7] Time–space metaphors play a prominent role in all these expression formats (cf. Haspelmath 1997: 19–21, Evans 2004, and Núñez and Sweetser 2005). Heine and Kuteva (2002: 205f.) say: "It is hard to find languages where some expressions for locative concepts are not extended also to refer to temporal concepts." In the Ego-based model, the metaphoric association of the future with "in front of Ego" and the past with "behind Ego" is quasi-universal;[8] similarly, the time-based model has "in front of reference situation" (cf. *ante quam*) and "behind reference situation" (*post quam*). Latin uses this metaphor most extensively in nominal adverbials (*in bello*, *post bellum*, *ante meridiem*, etc., cf. Haspelmath 1997: 2), but it is also prominent in temporal clauses, namely in sequential relations (*ex quo*, *postquam*, *antequam*), whereas it is less prominent in simultaneous relationships because of the dominance of the "relative" model (cf. *ubi* beside *cum*, *quando*, *quoniam*). The spatial model becomes increasingly significant over the course of the development of Latin: (a) The subordinator *priusquam*, which is founded on a temporal comparative, retreats, as shown in Table 4, before the "spatial" *antequam*, which predominates in Late Latin and wins out in Romance (Meyer-Lübke 1899: §600). (b) Post-classically, the semantic function TAQUO is expressed by the "separative" *ex quo* alongside the existing *ut* (cf. Section 6.2; for definitions of TAQUO and other labels, see Section 2 after Table 1). (c)

6. Cf. "actionality" (Haverling, this work, vol. 2, Section 2), "situation type" (Oldsjö 2001); Boogaart (2004) uses "Aktionsart." For the criteria for distinguishing among the *Aktionsarten* in Latin, see Vester (1983: 9–36).
7. Basic typological work on these two expression formats: Haspelmath (1997); for the typology of subordination, on which this chapter builds, see Thompson and Longacre (1985), Kortmann (1997), Kortmann (1998), Hengeveld (1998), Raible (2000), and Cristofaro (2003).
8. An exception is discussed in Núñez and Sweetser (2005).

While the simple subordinators *cum* and *ut* are in retreat in Late Latin, the spatial *ubi* remains stable. (d) And finally, many of the phrasal subordinators built on the "general subordinator" *quod* in Late Latin (cf. Section 3.4) are based on the spatial model: *post quod*, *ante quod*, *de quod*, *ad quod*.

On the other hand, among adverbials of "time extent" there is, according to Haspelmath (1997: 120–138), no general evidence for a conceptual transfer of spatial to temporal understanding. In Latin, though, it is recognizable in *quoad* and *ex quo* and is also seen historically in the etymology of *donec* (cf. n. 55 below).

1.2. Semantic and pragmatic extensions of temporal clauses

Alongside their basic semantic function of specifying the time reference of the main clause, as just described, temporal clauses can also be used for additional semantic and pragmatic purposes:

1. The *semantic extension* of the TIME network to what is called the "CCC network" (conditionality, causality, concessivity) is found in many languages, see Kortmann (1997: 188–193). In Latin it is found in the use of temporal clauses (a) as causal and concessive clauses, as seen in (2), on the basis of the extension "post hoc ergo propter hoc," which Hopper and Traugott (1994: 75) include among the standard cases of conventionalized implicature (see also Heine and Kuteva 2002: 291); and (b) to express situational plurality, as seen in (3), which straddles the boundary between temporal and conditional clauses (cf. Section 5 below). Conversely, the TIME network for its part is the goal of extensions of the networks MANNER and PLACE, cf. Section 3.2.1 below.

(2) Plaut. *Pseud.* 1214: *edepol ne istuc … metuo, quom uerba audio*
'by Pollux, that is what I dread, when I hear his words'

(3) Cic. *div.* 2,145: *gubernatores cum … uiderunt delphinos se in portum conicientes tempestatem significari putant*
'when helmsmen have seen dolphins gathering themselves together into the harbor, they think that a storm is indicated'

2. *Pragmatic extensions* of temporal clauses serve to organize discourse:[9] temporal clauses can have a *grounding* function, that is, they can participate in the *profiling* of a set of information in the foreground or background, especially in narrative texts. While in narrative texts the foreground information must be chronological and must further the discourse, the background information is free of this requirement; its syntactic demotion to the "subordinate clause" is thus a means of distinguishing between core information and supporting information oriented toward it.[10] The process is thus binary and in its operation often compared with "Rubin's paradox."[11] An extreme example is (4) (from Luraghi 2001).

(4) Caes. *Gall.* 1,27,2: *qui (legati Heluetiorum) cum eum in itinere conuenissent seque ad pedes proiecissent suppliciterque locuti flentes pacem petissent atque eos in eo loco, quo tum essent, suum aduentum exspectare iussisset, paruerunt*
'after the envoys of the Helvetii had met him on the way, had thrown themselves at his feet, had beseechingly and tearfully pleaded for peace, and had been told by him to await his arrival at their current whereabouts, they obeyed'

Temporal clauses are a preferred means of profiling in the above sense: because a temporal relation necessarily exists between two situations, temporal clauses are the least semantically marked form of combining adverbial clauses with main clauses and are thus suited for providing expository or explanatory information. The development of the *cum historicum* could well be motivated by this function (see Section 4.2 below).

Temporal clauses that exhibit "main clause phenomena" are still further distanced from their semantic point of origin; these include the *cum inversum*

9. For the following see fundamentally Givón (2001: 342–348), Cristofaro (2003: 25–27); for distinguishing foreground/background and figure–ground constructions, Khalil (2005).
10. See Luraghi (2001), Cristofaro (2003: 28–35); on the distinction between core and supporting/subsidiary information see Kroon (1995: 20–24, 1998).
11. E.g. in Bickel (1991: 76); relations between figure–ground constructions in literature, music, and visual arts are investigated by Tsur (2003).

as in (5), which in contrast to the other temporal clauses has a discourse-furthering function (see Section 4.2.2 below).

(5) Lutat. *Epigr.* 2,1–2: *constiteram exorientem Auroram forte salutans, / cum subito a laeua Roscius exoritur*
'I had readied myself to greet the emerging Dawn, when all of a sudden Roscius appeared from the left'

These pragmatic extensions operate on a higher level than genuine temporal clauses. The latter belong to the process of clause construction, since their effect is limited to the specification of the topic time of the main clause. With the provision of expository and explanatory functions, however, the boundary between clause and text is transgressed and such clauses belong to the process of text construction.[12]

3. Additionally, temporal clauses can achieve further nontemporal functions, on the basis of their temporal semantic function.[13] These include: (a) Temporal clauses as "comment clauses" that express a "propositional attitude"[14] as in (6): the speaker uses a temporal clause to signal the validity of his assertion; such clauses thus appear only in 1st person singular. (b) The *cum coincidens*, which describes a presupposed situation that is evaluated in the main clause by means of an ascriptive (i.e., nonreversible) comparison, see (7) and (8). As in a conditional construction, the main clause here contains no assertion independent of the temporal clause, but in contrast to conditionals, the instantiation of the subordinate clause does not remain open.

(6) Plaut. *Amph.* 447: *sed quom cogito equidem certo idem sum qui semper fui*
'but when I reflect, I am surely the same man as I have always been'

(7) Plaut. *Aul.* 194: *petit quom pollicetur*
'he is making demands while he makes promises'

12. Cf. Bickel (1991: 58–92); they belong to his type "adsentential subordination".
13. See Kortmann (1997: 95); for a typology of "atemporal" temporal clauses cf. Declerck (1997: 37-44).
14. The first term from Kortmann (1997: 87), the second from Noonan (1985).

(8) Cic. *Catil.* 1,21: *cum quiescunt, probant, cum patiuntur, decernunt, cum tacent, clamant*
'insofar as they are quiet, they show their approval; insofar as they are tolerant (of my speaking), they cast their votes in support; insofar as they remain silent, they cry out'

1.3. Temporal clauses and clause-linking

The constructions that are formed by temporal clauses with their main clauses are characterized by the techniques typical of clause-linking, which assign a subordinate clause to its place on the scale between cross-event coherence and cross-event integration; the process of integration and thus of clause-linking ends at the point where the integrated information becomes a nominal constituent of the higher clause.[15] The essential techniques of clause-linking (as collected by Raible 2000) are (1) hierarchization, (2) expression of semantic relations, (3) reference tracking, and (4) grounding. Point (4), which has already been touched on in Section 1.2, is discussed in Section 4.2, and (2) is covered in Section 2. We now deal with (1) and (3).

1.3.1. Hierarchization

Hierarchization encompasses two aspects, *subordination* and *desententialization*. Of the four most important means of clause-linking known cross-linguistically (see Raible 2000), namely clause chaining, adverbial conjunction, converb, and verb serializing, Latin uses the second and a functional equivalent of the third, participial and gerund constructions.[16] We limit ourselves below to the second, since gerunds do not express temporal relations at all, and participles can, by virtue of their aspectual meaning, express only the most general temporal relations, namely simultaneity and anteriority.[17]

15. Givón (2001: 327–328); cf. the pair of terms "aggregation/integration" in Raible (2000: 595). An example of integration in the present context is the attributive temporal clause of the type *tempus fuit, cum* … 'there was a time when …'.
16. See Nedjalkov (1998: 432) and Luraghi (2001: 410–414) based on Haspelmath (1995); for developments in Late Latin see Hoffmann (1999).

1. *Adverbial subordination* refers to the transformation of a semantically absolute clause into a relational clause by means of a two-place relator, the subordinator, which has a slot for a modificatum, the "main clause," and a slot for a complement, the "subordinate clause"; by filling the latter slot, the syntactic category of the entire expression, "adverbial", is determined.[18] Subordinators in European languages, according to Kortmann's (1998: 458–460) findings, typically (a) are uninflected, (b) operate over finite subordinate clauses, (c) have no syntactic function of their own, and (d) have a fixed position at the clause margin. Alongside the "regular" subordinators, Old and Late Latin and Early Romance have a form hybridized from the combination of coordinate and subordinate markers, called *parahypotaxis*, which employs a coordinator as clause boundary marker between subordinate clause and main clause((9)–(10)).[19]

(9) Plaut. *Merc.* 256–257: *postquam id quod uolui transegi, atque ego conspicor / nauem ex Rhodo*
'after I finished what I wanted to, then I caught sight of a ship from Rhodes'

(10) *e'l fante come fu sul letto, e un porco l'assannò per la gamba*
'and as the child lay on the bed, a pig bit him on the leg' (from Bickel 1991: 153)

2. *Desententialization* means the combination of cross-event coherence and functional profiling (Cristofaro 2003: 28–35), through which the adverbial clause takes on a "service" function vis-à-vis the main clause; the most important result is that it loses its illocutive force.

17. On the "simplicity" of such relations see Section 2; the future participle, which expresses posteriority, is rare in all eras, cf. Hofmann & Szantyr (1965: 390).
18. Details in, e.g., Lehmann (1985, 1986), and, using different terminology, Klein (2003).
19. See Hofmann & Szantyr (1965: 479), Bennett (1910: 102); on Romance, Wehr (1984: 161). Bickel (1991: 153) includes this type with the discourse-tracking devices; the main clause is assigned "greater information value by *regressive comparison* with the subordinate clause."

Desententialization is a topic that has attracted quite a bit of attention over the last couple of decades.[20] The approaches differ as to whether they classify the discourse level of clause conjunction (e.g., Sweetser 1990) or the demotion level of the subordinate clause (e.g., Lehmann 1988), with the definition of specific prototypes as needed (Bickel 1991, Van Valin and LaPolla 1997, Hengeveld 1998).[21] Using Hengeveld's (1998) terms and the Functional Grammar underlying them, the first approach considers (11) and (12) to be on the *propositional* discourse level ("epistemic level" for Sweetser), since the main clause represents a conclusion from the – factually presupposed – subordinate clause (11) or vice versa (12). The second approach considers the causal clause in (13) to be on the propositional level, since it contains an indicator of the speaker's attitude, whereas the clause conjunction level is that of *predication* ("content level" for Sweetser), since the causal clause does not affect the truth value of the main clause (it assigns no conclusion relationship to the main clause).

(11) *Hans presumably loves Eva, because he came back*

(12) *Hans presumably came back because he loves Eva*

(13) *Because he presumably loves Eva, Hans came back*

According to Hengeveld's (1998) categories – entity type, time dependency, factuality, and presupposition – temporal clauses belong:

(a) with respect to entity type, to the level of *predication*, thus the "second-order" level. In contrast to the hierarchically higher "third-order" clauses on the propositional level (e.g., *reason*), they cannot contain any expression of a propositional attitude (an expression like *presumably* in (13) would not be possible in a temporal clause); in contrast to the hierarchically lower "zero-order" clauses (e.g., modal clauses like *they escaped by sliding down a rope*), they can denote a situation different from that in the

20. See Schiffrin (1987), Haiman and Thompson (1988), Lehmann (1988), Matthiessen and Thompson (1988), Sweetser (1990), Bickel (1991), Harris and Campbell (1995), Van Valin and LaPolla (1997), Kortmann (1997: 28–32, 89–95), Hengeveld (1998), Lang (2000), Cristofaro (2003).

21. Literature review in Cristofaro (2003: 1–13); comments on misunderstandings in the literature because of mixing the two approaches in Pérez Quintero (2002: 50).

main clause and so are not subject to the tendency toward simultaneity and constituent-sharing.[22]

(b) with respect to time dependency, to the "second-order" clauses with dependent time-reference (as opposed to other "second-order" clauses like "addition" of the type "aside from the fact that …" and to all "third-order" clauses) but variable time *relation* (in contrast to the "zero-order" subordinate clause). A main clause preterite thus requires a past or prepast temporal clause, a main clause present requires a present or present perfect temporal clause, and so on. To the extent that clauses with temporal subordinators exhibit independent time reference, such as *cum … fuerit* in (14), it is an indication of a nontemporal semantic function (see Section 3.3.2).

(14) Cic. *Caecin.* 94: *cum idem (colonus) ex eadem conductione fuerit in fundo, dubium est quin, …*
'since this same tenant held the farm by the same lease agreement, can there be any doubt that … '

(c) with respect to modality, to the subordinate clauses that are presupposed in purely temporal function, and to those which are neither asserted nor presupposed in temporal-purposive function (*dum, donec*).[23] Because they are presupposed, temporal clauses are not operator-dependent,[24] as can be the case with causal or consecutive clauses ((12) ~ *Hans presumably loved Eva*; (16) ~ *non sum infra te,* cf. Heberlein 2003).

22. Irrelevant in our context are the "first-order" level, containing expressions for individuals, and the "fourth-order" level, containing clausal speech act markers like *If you're thirsty, there's beer in the cooler*.
23. For the division of subordinate clauses into presupposed and neither asserted nor presupposed, see Harris and Campbell (1995: 300). According to Hengeveld (1998: 353), simultaneous clauses are not presupposed, because they are within the scope of the main clause modalization. His example *he probably cut himself while shaving* is, however, a borderline case of a modal clause, which typically exhibits an instrumental/causal relation for concomitance clauses (see Lehmann and Shin 2005: 15). In normal simultaneity clauses like *he presumably laughed when he heard that*, this is not the case.
24. Van Valin and LaPolla's (1997) term, referring to the dependency of a subordinate clause on illocutive, modal, or polar information given in the main clause. An early systematic investigation of this topic is Dik et al. (1990).

(d) But the temporal *relation* itself can be operator-dependent, which provides an additional parameter of desententialization, namely, the level of integration into the main clause: in (15) the temporal relation is within the scope of a polar operator in the main clause (∼ *incipit, sed non tum*; by contrast, in (12) and (16) it is the content of the subordinate clause that is within the scope of the operator).

(15) Cic. *leg.* 2,10: *quae non tum denique incipit lex esse quom scripta est, sed tum quom orta est*
'and this became a law not at the moment when it was written but at the moment when it came into being'

(16) Ov. *trist.* 5,8,1: *non adeo cecidi, … ut infra / te quoque sim*
'I have not fallen so low that I am beneath you'

Diptychs such as (15) can therefore still be considered adverbial relative clauses, whose correlative indicates the higher nominal of the relative construction as well as the semantic integration of the temporal clause into the main clause (see Lehmann 1984: 318–322 and Section 3.2.1 below). In contrast, with the *cum historicum* as a rule no corresponding sign of semantic integration into the main clause is found.[25] Temporal clauses therefore cannot in fact assume distinct positions in the entity hierarchy, but they do assume a distinct position among the second-order clauses on the scale between event coherence and event integration.

1.3.2. Desententialization and tense/mood

In terms of the distinction going back to Stassen (1985, cf. also Stassen 2001) between "balancing" and "deranking," indicative temporal clauses are less strongly deranked, subjunctive ones more strongly; the former with "main clause–like" morphology, the latter without, since the subjunctive in temporal clauses regularly occurs in combination with another expression of deranking, the relative tense (see below). Temporally, all temporal clauses are

25. See Section 4.2.1 below. In seeming counterexamples like (28), the correlative serves as a resumptive after a long chain of temporal clauses.

deranked to the extent that they have the above-mentioned dependent time reference.

1. In indicative temporal clauses, two further distinct levels of desententialization result from the use of one of the two competing tense models, the older "absolute tense" model and the newer "relative tense" model.[26] The "absolute" tense is deictic, grammatically expressing the time relation of the temporal clause with respect to the moment of utterance (past, nonpast, future). The "relative" tense, in contrast, expresses the time relation of the subordinate clause to the main clause; it is nondeictic and a means of reference tracking (Bickel 1991: 9–10, Bisang 1998: 737–738). Temporal clauses in the indicative prefer the "conservative" absolute tense in the preterite (for reference to a future, obviously the relative future II). The contrast with the other kinds of subordinate clause, such as the relative clause, is obvious: from Oldsjö's (2001: 331, 333) material on Caesar it emerges that 54.5 % of preterital temporal clauses are in the perfect and only 6.7 % in the pluperfect, but in relative clauses it is the other way around, 6.48 % perfect, 51.8 % pluperfect.

2. In the subjunctive, temporal clauses obligatorily use the relative tense; for this combination of subjunctive + relative tense we use the traditional label *consecutio temporum* 'sequence of tenses'. Here too there are two distinct levels of deranking, according to whether the sequence of tenses is still semantically motivated or not. The *consecutio temporum* is a consequence of the preliterary syncretism of the perfect and aorist,[27] which resulted in the development of the perfect into a preterite and, consistently, of the pluperfect into a pre-past tense, and ultimately in the incorporation of the subordinate clause subjunctives into the tense system; via incorporation, the subjunctives assume the temporal functions of the corresponding indicatives.[28]

26. More precisely, using Comrie's (1985) terminology, the "absolute-relative tense". This term reflects the fact that finite forms of the relative tense exhibit their time reference indirectly (e.g., pluperfect: before preterite). Discussion in Oldsjö (2001: 46–49).

27. We follow Meiser (1993); cf. Meiser (2003: 82–83).

28. The incorporation itself follows the basic rule that a Proto-Indo-European subjunctive becomes a future and a Proto-Indo-European optative becomes a subjunctive, see Gippert (1999: 127). The origin especially of the subjunctive imperfect has been and still is much discussed, see the presentations in recent handbooks: Sihler (1995: 599f.), Meiser (1998: 201f.), Baldi (2002: 402f.). What is certain, in any case, is its nonpreterital origin; here

Corresponding to the function of the underlying optative, the imperfect subjunctive first signals posteriority with reference to a preterital main clause, then by analogy with the indicative simultaneity[29] (both side by side in (17)); the resulting combination of subjunctive and relative tense becomes an expression of agent-oriented modality, namely in *oratio obliqua* and in dependent desiderative clauses.[30]

(17) *CIL* I^2 581,4: *(censuere . . .) seiques esent, quei sibei deicerent necesus ese Bacanal habere, eeis utei ad pr(aitorem) urbanum Romam uenirent*
'they decreed, if there should be any who say that it is necessary for them to have a cult site of Bacchus, they should come to Rome to the city praetor'

In temporal clauses, the *consecutio temporum* is accordingly still semantically motivated when the temporal clause has a modal function, thus in some clauses that indicate extent of time and posteriority (*dum*, *donec*; *priusquam*), where in Old Latin there was productive modal opposition "temporal : temporal-purpose" (see Sections 4.4.1, 6.1.1). Since the *consecutio temporum* early on gave way to a desemanticization process and consequently already in the preliterary period had been extended to the nonmodalized consecutive clauses (see Leumann 1940), after Old Latin the nonmodal temporal clauses were also captured by this process. The most obvious example is the development of the *cum historicum* (see Section 3.3); but diachronically no less "disastrous" was the trend toward generalizing the subjunctive into the aforemen-

we follow Meiser (1993), who derives it from an underlying future optative. For the perfect see De Melo (2005).
The earlier state of affairs is naturally not completely eliminated. Thus the Old Latin prohibitive in its old aorist form can still be found even in subordinate clauses, see Plaut. *Capt.* 791 *eminor, ne mi obstiterit obuiam* (see Meiser 2003: 79, De Melo 2005); the irrealis in Old Latin is not bound to specific tenses (see Hettrich 1992, Meiser 1993, Calboli 1996), and in Classical Latin as well takes on no preterital time reference in the imperfect.

29. See Meiser (1993: 191–193) with reference to the corresponding function of the Greek optative.
30. On the dependent desiderative clause's belonging to the realm of agent-oriented deontic modality, see Cristofaro (2003: 157).

tioned temporal clauses that previously had had a productive modal opposition, since this opposition in the end was canceled out. The subjunctive was thus reduced from the signal of agent-oriented modality to its basic function, the signaling of nonassertion, whereas the relative tense retains its function as marker of main clause orientation. The *consecutio temporum* thereby changes to the means of expression of communicative demotion and supportive function of the temporal clause vis-à-vis the main clause. So long as a subjunctive temporal clause retains to a noteworthy extent an indicative alternative like the *cum*-clauses, a nonmodal subjunctive can express a pragmatic opposition (see Section 4.2). With the post-classical extension of the subjunctive (details in Sections 4.1 and 6), nothing remains of the meaning of the subjunctive but the signaling of subordination.[31]

1.3.3. Desententialization and aspect

The existence of grammatical aspect in Latin has not been uncontroversial in the last two decades, as a result of the dominance of the "relative tense" theory of Harm Pinkster.[32] It introduced an opposition to typological[33] and Indo-European aspect research,[34] where at best the level of decomposition or reorganization of the category was controversial.[35] The "relative tense" theory has recently been shaken by Oldsjö's (2001) fundamental critique (see also Haug 2004); in the following we therefore assume the existence of grammatical aspect in Latin – that is, we accept that Latin possessed grammatical means of representing a situation (cf. n. 6) in "different dimensions of terminality" (Johanson 2000), without altering its *Aktionsart*:

31. According to Raible (1992), that is the endpoint of the grammaticalization of its basic function, "not-asserted"; on the various levels of grammaticalization of the subjunctive in Latin subordinate clauses, see Molinelli (1998).
32. First in Pinkster (1983), then as chap. 11 of the various editions of his *Latijnse Syntaxis en Semantiek* (Dutch 1984, German 1988, English 1990, Spanish 1996).
33. See e.g. Dahl (1985), Bybee, Perkins, and Pagliuca (1994), Johanson (2000), Hedin (2000), Binnick (2001), Lindstedt (2001), Boogaart (2004); further bibliography in Haverling (this work, vol. 2, Section 4).
34. Recent overviews in R. Stempel (1998, 1999), Baldi (2002: 365–368), García-Ramón (2002), Meier-Brügger (2002: 256–259), and Meiser (2003: 15–26).
35. See, e.g., the discussion as to whether Latin has a reduced form (e.g. Meiser 2003), or Greek an extended form (e.g., Kurzová 1993) of the proto-system.

1. Latin has a variant of the "classical" Indo-European aspect system (Comrie 1981, Dahl 1985: 81, cf. Bybee, Perkins, and Pagliuca 1994: 83, Johanson 2000) "perfective–imperfective [present–past]," with the "system-conditioned" limitation of perfectivity to past time reference (incompatibility of "present" with perfectivity, see Kravar 1980, Lindstedt 2001, Meiser 2003: 75f.).[36] Under perfective aspect a speaker perceives a situation as an unanalyzed whole, while the imperfective aspect suspends the right boundary of the situation: in the main clause it is not asserted that it is attained, in the subordinate clause it is not presupposed. The preterital aspect opposition thus implies a distinct temporal relationality of the aspects:[37] both have a relation to the speaker's reference point ("past"), but the imperfective aspect implies additionally a relation to a reference point included in the imperfective situation to be identified from the context and therefore has a secondary temporal relation of simultaneity to this reference point.

In subordinate clauses and thus in temporal clauses, because of the main clause orientation of the subordinate clause this reference point is principally represented by the main clause. It follows from this that a preterital temporal clause in imperfective aspect alongside the primary deictic relation to the moment of speech ("past") implies a secondary temporal relation "simultaneous" to the main clause, whereas perfective aspect for the temporal clause implies no particular temporal relation with the main clause, compare (18) with simultaneous and (19) with anterior relation of the temporal clause to the main clause. This relation must be clarified on the basis of other grammatical and pragmatic information (cf. Kühner & Stegmann 1914, 2: 129 "is left to the judgment of the hearer"); details in Section 4.1.2.

36. The variant is characterized by the historical merger of Proto-Indo-European (perfective) aorist and (imperfective) perfect into a preterite. As a result, the aspect opposition in Latin rests on the structural opposition between the imperfect as preterite of the present stem, which had inherited the imperfective aspect from Proto-Indo-European (Baldi 2002: 366; on the controversial question of the formation of the imperfect see Sihler 1995: 554–558, Meiser 1998: 197–198; Baldi 2002: 397–398), and the perfect, whose stem is no longer characterized aspectually, but which is associated with perfectivity as the "standard preterite".

37. On the inherent relationality of the aspects see Johanson (2000: 28–30), Meier-Brügger (2002: 256).

(18) Plaut. *Trin.* 194: *posticulum hoc recepit, quom aedis uendidit*
'he kept the shed when he sold the house'

(19) Caes. *Gall.* 3,18,5: *quod ubi auditum est, conclamant omnes occasionem negotii bene gerendi amittendam non esse*
'and when this was heard, all cry out together that the opportunity to end the matter well must not be allowed to lapse'

The aspect opposition perfective : imperfective in Latin, differently from the Romance languages, also exists in atelic situations (see Haverling, this work, vol. 2, Section 4.1.4) and can be exploited pragmatically in temporal clauses as well to differentiate between foreground and background (see Section 6.1.2).

2. Aspect is fundamentally bound to "absolute" time. The phasal structure of aspectually unmarked clauses – that is, those with relative tenses and those that are in the "historical present,"[38] can be signaled in two ways:

(a) By implication of an aspectual *function* via time relation: the pre-past of the pluperfect and future II implies completion and therefore perfective aspect function.[39] An indication that this also holds for the subjunctive pluperfect is its use in temporal clauses with subordinator-determined posteriority like (20). Given that here it cannot be expressing the temporal relation of anteriority, it can only be motivated by its aspectual function.

(20) Verg. *Aen.* 1,471–473: *Tydides … / auertit equos in castra prius quam / … Xanthum … bibissent*
'Diomedes diverted the horses into the camp before they could drink from the Xanthus'

(b) By its *Aktionsart*, as is usual in languages that do not have grammatical aspect: "default aspect", see Bohnemeyer and Swift (2004). This is, among other things, the basis for the varying interpretations of the histori-

38. For the historical present as a reflection of the Proto-Indo-European system of reduced verb marking, see Sihler (1995: 451).
39. See Kravar (1980), who says that the aspect in certain circumstances is "abducted" into the subjunctive; Luraghi (2001: 416) speaks of the aspect function of the *cum historicum*.

cal present, which sometimes "substitutes for" the perfect, sometimes for the imperfect.[40]

3. Differing with Luraghi (2001: 216), who accepts the (imperfective) aspectual function for the subjunctive imperfect as well, we assume that the phrasal structure of the subordinate clause with subjunctive imperfect is interpreted on the basis of the "default aspect." Indeed there are indications that could support imperfective aspectual function, such as the parallel clauses with indicative and subjunctive adduced in Kühner & Stegmann (1914, 2: 345), including Cicero's famous mistaken quotation of Plautus in (21).[41]

(21) Plaut. *Aul.* 178: *praesagibat mi animus frustra me ire quom exibam domo* (Cic. *div.* 1,65: *exirem*)
'my mind foresaw that I was going in vain when I was leaving the house'

Other cases, however, clearly show that the simultaneity of the subjunctive imperfect does not necessarily imply an imperfective aspectual function:

(a) As is known, momentary situations do not appear in the indicative imperfect; if so, it would then be with special emphasis on the imperfective aspect (iterativity, progressivity, imperfect *de conatu*, see Vester 1983: 18–20)[42] as a result of the conflict between momentary *Aktionsart* and imperfective aspect (Oldsjö 2001: 227–233). In the subjunctive imperfect, the corresponding verbs appear without special aspectual meaning and correspond not to an indicative imperfect but to an indicative perfect, see (22)–(24).

(22) Cic. *Phil.* 2,34: *cum interficeretur Caesar, tum te a Trebonio uidimus seuocari*
'when Caesar was murdered, we saw that you, at the same time, were summoned by Trebonius'

40. See the discussion of Oldsjö's (2001) examples from Caesar in Haug (2004).
41. First noticed by Lindsay (1904: 30).
42. Examined there with a test using the verbs *interficere*, *necare*, *occidere*, *animaduertere*, *cadere*, *mori*, *inuenire*, and *reperire* in Cicero and Livy.

(23) Vitr. 7,7,1: *cum ibi uena forte inueniretur, nihilo minus uti argentum persequebantur*
'when by chance a vein (of ochre) was found there, nonetheless they continued the search as if it were silver'

(24) Tac. *ann.* 6,26,3: *nupta olim Cn. Pisoni ..., cum Piso caderet, precibus Augustae ... defensa erat*
'she had previously been married to Piso, and when Piso fell, she was protected by the intercessions of the empress'

The "imperfect paradox" in telic situations[43] therefore does not function in the subjunctive temporal clause, and the right boundary of the situation is not suspended. Further indications of this are the lax handling of the *consecutio temporum*:[44] the imperfect in (23) and (25) expresses anteriority with reference to the main clause, which would be unimaginable in the indicative, compare *conspiciebantur* ∼ 'see' in (26); the (post-classical) use of the subjunctive imperfect instead of the indicative perfect in "factive" *antequam* clauses as in (27).

(25) Curt. 7,3,16: *illi ... cum armatos repente conspicerent, exanimati metu, quidquid in tuguriis erat, adferebant*
'when they suddenly caught sight of the armed men, they, driven out of their wits with fear, brought out and offered whatever there was in their huts'

(26) Liv. 30,25,4: *cum ad Bagradam flumen peruenissent, unde castra Romana conspiciebantur, Carthaginem rediere*
'after they arrived at the Bagrada river, from which the Roman camp ws visible, they returned to Carthage'

(27) Val. Max. prol. 5,5: *in eodem domicilio (= utero matris) ante quam nascerer habitaui*
'I lived in the same house before I was born'

43. See Vester (1983: 16–18), Haverling (this work, vol. 2, Section 4.1.6), Bohnemeyer and Swift (2004).
44. See Kühner & Stegmann (1914, 2: 154); increasingly in Late Latin, see Haverling (2010).

(b) In atelic situations as in (28), the subjunctive imperfect can occur for the indicative perfect *or* the indicative imperfect: *teneretur* could be mirrored in the indicative according to the aspect as *tenebat* or *tenuit*, corresponding to the difference between (29) and (30). The aspectual opposition, which in the indicative also applies to stative situations, is thus neutralized in the subjunctive.

(28) Cic. *Pis.* 23: *cum … id … templum … a Catilinae praeuaricatore quondam tum ultore armis teneretur …: tum Romae fuisse consules quisquam existimabit?*
'when that temple was being held under arms by a man who had once been a pretended accuser of Catiline, but who now was seeking to be his avenger: will anyone think there were consuls at Rome at that time?'

(29) Cic. *div.* 2,3: *quos tum scripsimus, cum gubernacula rei publicae tenebamus*
'I wrote these books at the time when I held the rudder of the republic'

(30) Catull. 67,2–4: *salue, … / ianua, quam Balbo dicunt seruisse benigne / olim, cum sedes ipse senex tenuit*
'salutations, O Door, which they say served Balbus goodnaturedly long ago when the old man lived here'

2. The time network in Latin

The time network is one of the four great adverbial networks alongside CCC (cause–condition–contrast), MODAL, and PLACE. Table 1 presents the semantic map of the time network according to Kortmann (1997),[45] together with

45. Kortmann's definitions of the semantic functions are quoted below. We also use Kortmann's terminology because of the great familiarity of Kortmann's book. Haspelmath (1997: 32), however, correctly observes that terms like "anteriority" and "posteriority" for the relationships marked by *antequam* and *priusquam* describe the situation of the temporal clause with reference to that of the main clause; given that the temporal clause serves as the reference situation, it would be natural to label the time-location-function

Table 1. The temporal semantic functions in Latin. Markings: (a) *quoniam*: Old Latin only; donec: beginning in the classical period; ex quo: beginning in the Augustan period; quamdiu: beginning in 2nd century CE; DUM: beginning in Late Latin; (b) (cum): non-adverbial function; (c) ← or →: the direction of a semantic extension.

	TAQUO 'since'	ANTE 'after'	IMANTE 'as soon as'	SIOVER 'when'	SICOEX 'as long as'	TAQUEM 'until'	POST 'before'
(1)	(cum)	cum	cum	cum			
	ut	ut	ut	ut			
		ubi	ubi	ubi			
		DUM	DUM	dum	dum	dum	
					donec ←	donec	
		quando	quando	quando			
(2)		*quoniam*	*quoniam*	*quoniam*	quoad ←	quoad	
(3)	ex quo		simul ac		quam diu →	quamdiu	
(4)	postquam	post quam					prius quam, ante quam

↓ ↓ ↓

CONTING
cum, ubi, ut, simulac
quotiens

the subordinators that in the corpus employed, the LASLA Corpus,[46] from Old Latin to the beginning of the 2nd century CE, achieved a frequency ≥ 0.5 % in at least one of the four periods distinguished in Table 4 below. The subordinators are ordered vertically by increasing morphological complexity, according to a simplified version of the catalog of criteria in Kortmann (1997: 77ff.),[47] following the four categories (1) monomorphemic, (2) poly-

of the temporal clause with reference to the main clause the other way around, which would also conform with the use of the subordinator: *ante (quam)* signals anteriority, *post (quam)* posteriority of the main clause with reference to the temporal clause.

46. Available at http://www.ulg.ac.be/cipl/bdlasla/. The local variant used here contains texts by the following authors: *Old Latin*: Plautus (6 comedies), Cato; *Classical Latin*: Caesar (*Gall.*), Cicero (*Rab. perd., Manil., Catil., Lael., nat. deor.*), Catullus, Lucretius, Sallust; *Augustan period*: Vergil, Tibullus, Horace, Ovid (excerpts), Livy (5 books), Vitruvius; *Early Imperial period*: Persius, Juvenal, Seneca, Curtius Rufus, Tacitus.
For materials not covered here, the Packard Humanities Institute collection is used as a supplement (from Livius Andronicus to the beginning of Christian literature, cited as PHI-Corpus); for Late Antiquity the 'Library of Latin Texts' (CLCLT-5) is added.

morphemic, (3) phrasal (optional or obligatory; the latter only for *ex quo*), (4) (optionally) discontinuous.

The definitions of the semantic functions according to Kortmann are:[48]

- TAQUO (Terminus a quo): "*p* identifies a point or period of time in the (relative) past from which onwards *q* has been true" (31)
- ANTE (anteriority): "*p* simply precedes *q* in time" (32)
- IMANTE (Immediate anteriority): "*p* immediately precedes *q*" (33)
- SIOVER (Simultaneity overlap): "*p* overlaps with *q*" (34)
- SICOEX (Simultaneity co-extensiveness): "*p* opens up a time interval for the whole of which *q* is true" (35)
- TAQUEM (Terminus ad quem): "*p* identifies a point or period of time in the (relative) future up to which *q* is true" (36)
- POST (Posteriority): "*p* simply follows *q* in time" (37)–(38)
- CONTING (Contingency): "in cases when *p*, *q*"; "whenever *p*, *q*" (39)

This semantic map is based on the basic functions of the 'basic time concept': functions of time location are ANTE, IMANTE, SIOVER, and POST, those of time extent are TAQUO, SICOEX, and TAQUEM.

(31) Sen. *apocol.* 10,1: *uos testes habeo, ex quo deus factus sum, nullum me uerbum fecisse*
'I have you as witnesses that I have never spoken a word since I became a god'

(32) Plaut. *Capt.* 19–20: *is postquam hunc emit, dedit eum huic gnato suo / peculiarem, quia quasi una aetas erat*
'after purchasing this man, he gave him to his son as his own private property because their ages were approximately the same'

47. Kortmann divides the subordinators into 6 levels of morphological complexity: (1) single monosyllabic morpheme (Eng. *as*, Lat. *cum*), (2) single polysyllabic morpheme, (3) polymorphemic, one word, (Eng. *whereas*, Ger. *nachdem*, Lat. *quoad*), (4) phrasal (Eng. *as soon as*, Lat. *ex quo*), (5) discontinuous (Eng. *the* … *the*, Lat. *post* … *quam*), (6) forming patterns (Eng. *wherever*, Lat. *ubicumque*). For our purposes, the above simplified version suffices, since it makes sufficiently clear the connection between level of simplicity/complexity and level of polysemy, see Section 3.1 below.

48. The abbreviations of the semantic functions are Kortmann's; *p* stands for the temporal clause, *q* for the main clause.

(33) Plaut. *Amph.* 202–203: *ubi primum terram tetigimus, / continuo Amphitruo delegit uiros primorum principes*
'as soon as we reached land, Amphitruo straightaway chose the best of the best of the men'

(34) Plaut. *Amph.* 1071: *neque nostrum quisquam sensimus, quom peperit*
'and not one of us noticed when she gave birth'

(35) Plaut. *Truc.* 10–11: *Athenis mutabo ita ut hoc est proscaenium / tantisper dum transigimus hanc comoediam*
'I will transform this stage here into Athens while we perform the play'

(36) Plaut. *Asin.* 326–328: *non uides / me ex cursura anhelitum etiam ducere?* :: *Age, age, mansero / tuo arbitratu, uel adeo usque dum peris*
'do you not see that I am still gasping from running? :: I will wait to your heart's content, all the way up to when you die'

(37) Plaut. *Amph.* 102–103: *is prius quam hinc abiit ipsemet in exercitum, / grauidam Alcumenam uxorem fecit suam*
'before he left from here and entered the army, he impregnated his wife Alcumena'

(38) Cato *agr.* 117,1: *(oleae albae) ante quam nigrae fiant, contundantur et in aquam deiciantur*
'white olives should be crushed and put in water before they turn black'

(39) Cato *agr.* 59,3: *quotiens cuique tunicam dabis, prius ueterem accipito, unde centones fiant*
'whenever you give anyone a tunic, first take the older one, from which a patchwork quilt can be made'

1. The semantic functions form a scale "general → specific" according to the level of specification of (a) linearity (see Section 1.1 above), (b) *Aktionsart*/aspect, (c) modality.[49] The simplest time extent semantic function,

49. On determining semantic properties via the semantic function, see Cristofaro (2003: 164f.).

SICOEX, is more specific than the simplest time location semantic function, SIOVER, because it assumes a specific *Aktionsart* of the main clause, the atelic. Within time extent, the semantic function TAQUEM is more specific than SICOEX, because in contrast to the latter it combines atelic extent with a *terminus ad quem*; TAQUO is more specific than either of those, because it represents the special case of specifying the left situation boundary (details in Sections 4 and 6). Within time location, the most general semantic function is SIOVER, which specifies only the basic parameter linearity as "nonsequential." ANTE/IMANTE, on the other hand, determines linearity (sequential/sequential-proximative) and aspect (perfective); and POST, linearity and modality, namely, nonrealization at the reference time of the main clause situation, for which reason POST-clauses often have irrealis or purposive interpretations, see (38). This distinct specificity is reflected in Table 1 in the different number of subordinators available for each semantic function (see Kortmann 1997: 169–170): for time location semantic function, there are at least six subordinators, for time extent four, for TAQUO three, and for POST only two.

The above-cited definitions of the semantic functions themselves are of course highly traditional (similar ones appear already, e.g., in Meyer-Lübke 1899); what is new in Kortmann's presentation of the time network is that the kind and number of semantic functions are bolstered[50] by a typological corpus investigation and that the semantic functions are ordered according to the principle of adjacency: the global structure is given by the time relations of the reference situation to the located situation/quantified situation (anterior, simultaneous, posterior); within this, the semantic functions are ordered so that the semantic affinities between them become clear as well as the potential for semantic extensions, since these are only possible between adjacent semantic functions (in Table 1, marked by arrows). Thus if a subordinator expresses any two non-adjacent semantic functions, it also expresses all the semantic functions between them (see Kortmann 1997: 186, Haspelmath 1997: 105–106).

50. Basic methodology also in Haspelmath (1997: 10–13).

Aside from this semantic continuum, there is CONTING, where the time reference in contrast to the other temporal semantic functions is indefinite in principle.

2. Within the list of semantic functions, Kortmann distinguishes further between those that belong to the "core" (SIOVER, ANTE, IMANTE; TAQUEM), the "extended core" (POST, SICOEX), and the "periphery" (TAQUO), by means of the parameters (a) level of lexicalization of the semantic function in subordinators and their respective level of grammaticalization (multiword → one-word → monomorphemic subordinator), and (b) the portion of one-word subordinators that have exclusively adverbial function. For the temporal semantic functions in Latin, these criteria simply provide an unambiguous distinction between the semantic function TAQUO and the rest, since this semantic function has only one subordinator that lexicalizes the semantic function, namely *ex quo*, which moreover appears late and exhibits a low level of grammaticalization, since it is obligatorily phrasal and in certain syntactic contexts also interpretable as a normal relative, see Section 6.2.2.[51]

3. Table 1 shows one divergence from Kortmann's version of the time network: it is missing the semantic function "simultaneous duration" (SIDUR). According to Kortmann's definition, SIDUR has the following properties: "*p* opens up a time interval for the whole or parts of which *q* is true" (40).

(40) *I learned all about flowers while we lived in the country*

That is to say, an atelic (stative or dynamic) subordinate clause includes a dynamic-telic (boundary criterion against SICOEX) main clause. It can be considered a variant of SIOVER. Kortmann's definition of SIOVER covers not only the prototypical case of the inclusion of a momentaneous located situation in an atelic reference situation like (41), but also inclusion of nonmomentaneous situations. Moreover it covers (a) inclusion of a momentaneous reference situation in the atelic located situation, cf. *cum datum est … uagabantur* in (42); (b) overlapping of reference situation and located situation in the fashion that either reference situation begins before located situation and

51. The assignment of SICOEX to the extended core cannot be verified in Latin, since the percentage of nonprototypical subordinators that also have another syntactic function in all semantic functions other than POST remains constant around 50%: *quoad, quam diu* in SICOEX, *quando, ut, ubi* in SIOVER, ANTE, IMANTE.

both proceed in parallel (43) or vice versa (44); (c) indeterminacy of inclusion or coextension, if reference situation and located situation are both atelic, see (45). This variability corresponds to the above-mentioned "general" character of SIOVER.

(41) Curt. 4,6,17: *dum inter primores … dimicat, sagitta ictus est*
'while fighting in the front lines, he was struck by an arrow'

(42) Cic. *Flacc.* 30: *illa enim est gloria … Pompei, … praedones eos qui tum cum illi bellum maritimum gerendum datum est toto mari dispersi uagabantur redactos esse omnis in ⟨populi Romani⟩ potestatem*
'indeed, this is the glory of Pompeius, that those corsairs who were prowling the seas at the moment when the conduct of naval warfare was entrusted to him were all brought back under the power of the Roman people'

(43) Caes. *Gall.* 6,7,1: *dum haec a Caesare geruntur, Treueri … Labienum … adoriri parabant*
'while these things were being carried out by Caesar, the Treveri were making ready to set upon Labienus'

(44) Liv. 21,7,1: *dum ea Romani parant consultantque, iam Saguntum summa ui oppugnabatur*
'while the Romans were making ready and holding deliberations, Sagunt was already being assaulted most fiercely'

(45) Liv. 29,31,1: *Hasdrubal tum forte cum haec gerebantur apud Syphacem erat*
'Hasdrubal happened to be with Syphax at the time when these events were transpiring'

3. Temporal subordinators

The following overview of the temporal subordinators in Latin is oriented toward Kortmann's (1997) categories: (1) diachronic development, (2) level of morphological complexity, (3) semantic and syntactic multifunctionality.

3.1. Morphology and multifunctionality

As regards points (2) and (3), Kortmann's statistics (1997: 102) for all the adverbial subordinators of Latin and Greek display a significantly higher percentage of one-word subordinators than for the modern languages (Table 2).

Table 3 shows the correlation between morphological simplicity/complexity and multifunctionality for the most common (cf. Table 4) temporal subordinators of Latin in accordance with the categories in Table 1 above. This table allows us to examine Kortmann's Inverse Relation Hypothesis, which states that the level of morphological complexity of a subordinator (1) is inversely proportional to its level of semantic and syntactic multifunctionality (1997: 113–122, 1998: 479–482), and (2) correlates with a corresponding level of cognitive complexity (1997: 158–161). It clearly applies to the Latin temporal subordinators, which form a continuum from the monomorphemic subordinator like *ut* with the highest level of polysemy in the left column to the (optionally) discontinuous and cognitively complex *prius-/antequam* (Section 2) in the right column. But there is a limitation on (1) that polysemy reaches all the way to the discontinuous subordinators, and on (2) that even

Table 2. One-word subordinators in Latin and in modern languages

	Greek & Latin	modern languages
One-word : Multi-word subordinators:	76.7 : 23.3 %	54.8 : 45.2 %
Polysemic : Monosemic subordinators:	53.4 : 46.6 %	33.3 : 66.7 %

Table 3. Morphological structure and number of semantic functions

Mono-morph.	Semantic functions	Poly-morph.	Semantic functions	Phrasal	Semantic functions	Discon-tinuous	Semantic functions
ut	4	*quoniam*	3	*quam diu*	2	*post ... quam*	2
cum	3	*quoad*	2	*simul ac*	1	*prius ... quam*	1
ubi	3			*ex quo*	1	*ante ... quam*	1
dum	3						
quando	3						
donec	2						

Table 4. The temporal subordinators that in at least one period reach a frequency ≥ 0.5 %

Old Latin	Indic.	Subjunc.	Total	%	*Classical Latin*	Indic.	Subjunc.	Total	%
cum	215	56	271	34.04	*cum*	552	591	1143	58.61
ubi	208	33	241	30.27	*ubi*	298	23	321	16.46
dum	53	39	92	11.55	*post(ea)quam*	144	6	150	7.69
postquam	47		47	5.90	*dum*	94	25	119	6.10
quando	42	3	45	5.65	*priusquam*	13	52	65	3.33
priusquam	26	14	4	5.02	*simul(ac)*	42	2	44	2.25
ut(i)	17	17		2.13	*ut*	32		32	1.64
donec, donicum	21	2	23	2.88	*donec*	24	1	25	1.28
quoniam	8		8	1.00	*antequam*	11	8	19	0.97
antequam	2	5	7	0.87	*quando*	17	1	18	0.92
quotiens	5		5	0.62	*quoad*	8	6	14	0.71
Total			796					1950	

Augustan Latin	Indic.	Subjunc.	Sum	%	*Imperial Latin*	Indic.	Subjunc.	Sum	%
cum	956	354	1310	53.68	*cum*	1079	917	1996	52.15
dum	354	74	428	17.54	*dum*	496	83	579	15.12
ubi	212	10	222	9.09	*ubi*	284	44	328	8.57
ut	145		145	5.94	*postquam*	166	10	176	4.59
postquam	106	4	110	4.50	*ut*	169		169	4.41
simul(ac)	57	3	60	2.45	*donec*	66	86	152	3.97
donec	37	19	56	2.29	*quotiens*	115	33	148	3.86
antequam	7	34	44	1.80	*antequam*	38	94	132	3.44
quotiens	29	1	30	1.22	*quamdiu*	58	4	52	1.35
priusquam	7	16	23	0.94	*quando*	13	28	41	1.07
quando	10	2	12	0.49	*priusquam*	2	21	23	0.60
					ex quo	18	1	19	0.50
					simul	12		12	0.31
Total			2440					3827	

complex subordinators can express simple semantic functions (*postquam*, *simulac*).[52]

52. Table 3 omits *quotiens*, which is limited to the special case of indefinite-plural time

If we now consider the frequency of use of these subordinators and not just, as in Kortmann's statistics quoted in Table 2, the relations among the lemmata, the dominance of monomorphemic and polysemous subordinators emerges even more clearly. The overview in Table 4, which includes all the temporal subordinators in the corpus (see n. 46) which in any period between Old Latin and the beginning of the 2nd century CE have reached a frequency $\geq 0.5\,\%$, shows that *cum*, *ubi*, and *dum* account for more than 70 % of all temporal subordinators in every period. Of these, *cum* is the undisputed winner, which is only enhanced by the development after Old Latin of the *cum historicum*.[53] Conversely, of the optionally discontinuous and phrasal subordinators, only *postquam* clearly exceeds the 5 % mark. The temporal subordinators of Latin are thus a clear instance of Zipf's Economy Principle, which states that a word's frequency correlates inversely with its complexity (Kortmann 2001: 846). In diachronic perspective, Latin is close to the old Indo-European languages, which happen to exhibit a higher level of polysemous subordinators, in the first place because of the high number of "relative-like" subordinators (see Section 3.2.1 below). The Romance languages display a contrasting model, with a portion of phrasal subordinators reaching up to 94 % (French; see Kortmann 1997: 217–228).

3.2. Categories of diachronic input

The well-known observation of Meillet ([1915] 1958), "les origines des conjonctions sont d'une diversité infinie", holds for the temporal subordinators of Latin only to a limited degree. In fact, of the 26 possible input categories for adverbial subordinators listed by Kortmann (1997: 79), essentially only

reference, which assumes an intermediate position between temporal and conditional semantic functions.

53. In order not to skew the picture, Table 4 includes *cum* + subjunctive only in the imperfect and pluperfect, since in the present and perfect its meaning is primarily causal/concessive. Likewise, *ut* with subjunctive, which has as a rule a purpose/consecutive semantic function, is completely omitted; as a result we have to accept that a few examples of temporal *ut* with "oblique" subjunctive may have eluded the statistics.

three are used for temporal subordinators in Latin: (1) relatives, (2) time particles, (3) comparative constructions. The first two groups are the preferred sources of simple subordinators, the third of complex ones.

3.2.1. Simple subordinators

The majority of one-word subordinators, as in the other old Indo-European languages, ultimately go back to the relative;[54] this holds both for the monomorphemic (*cum*, *ubi*, *ut*) and for the polymorphemic, whether extended with an adverb (*quoniam* < *quom iam*) or an adposition (*quo-ad*, *donec*).[55]

3.2.1.1. Subordinators that derive from the relative. Among the subordinators that derive from the relative, *cum* and *quotiens* with their correlatives *tum/totiens* represent the Indo-European correlatives **quo* … **to*, whereas the correlatives to *ubi* and *ut*, *ibi* and *ita*, are adverbs from *is* and thus inner-Latin innovations analogous to the "personal" correlation *qui* … *is* (Haudry 1973, Fruyt 2005: 33f., Rousseau 2005: 56).

1. The temporal meaning of *cum* derives, according to prevailing opinion,[56] from a relative construction with a temporal noun by transfer of its temporal meaning to the relative in patterns like (46).

(46) Plaut. *Amph.* 91–92: *etiam, histriones anno quom in proscaenio hic / Iouem inuocarunt, uenit, auxilio is fuit*
'yet in the year when the stageplayers invoked Jupiter here on the stage, he came and aided them'

54. For the relative as the principal source of adverbial subordinators in Indo-European see Brugmann (1904: 656–658). For the problems in the semantic description of these highly polysemous subordinators see Hettrich (1988: 195–212).

55. *Donec*, OLat. *donicum* (so 12 of the 23 examples in Table 4), is according to Hofmann & Szantyr 1965: 628 reduced from *dō-ne-quom*, a compound of a directional indicator (*OLD* s.v. *do-*: 'to', cf. Gk. -δε), an intensifying particle *ne* (as in *denique*), and *quom*; the original meaning is thus 'until the moment where'. The etymology of *quando* is unclear, see Hofmann & Szantyr (1965: 608).

56. See Walde & Hofmann (1965) s.v., Hofmann & Szantyr (1965: 486), and recently Lühr (1989) and Rousseau (2005).

The morphology of *quom* presupposes masculine gender of the noun, and the accusative is an accusative of time.[57] This pattern is an instance of a particular type of relative construction, the "fusion type" described by Lehmann (1984: 318–322), which typically can arise in relative constructions with temporal, locative, or modal function (see also Hettrich 1988: 298–302). The "analytic" pattern (47) *tempore quo*, in which the relative pronoun via its anaphoric function represents the nucleus of the relative construction with its temporal meaning and via inflection signals its own syntactic function, is thus replaced by the pattern (48) *tempore cum* – that is, by a temporal relative adverb, by which both temporal meaning and syntactic function are expressed fusionally.

(47) Cic. *Att.* 1,1,1: *nos autem initium prensandi facere cogitaramus eo ipso tempore quo tuum puerum cum his litteris proficisci Cincius dicebat*
'at the time when Cincius told me that your servant set out with this letter, I had it in mind to begin to sue for the consulship'

(48) Cic. *Flacc.* 30: *nonne eo ipso tempore cum L. Flaccus in Asia remiges imperabat, nos hic in mare superum et inferum sestertium ter et quadragiens erogabamus?*
'at that very time when L. Flaccus was conscripting rowers in Asia, did we not appropriate 4,300,000 sesterces for operations on the Adriatic and Tyrrhenian seas?'

There thus arises a semantically specialized "relative clause" with an internal "minimal nucleus" (see Lehmann 1984: 293–304), "time". The existence of this minimal nucleus makes it possible for the adverbial subordinator to express the temporal meaning autonomously. Distinct from this is the competing model (49) and (50), where the subordinator contains no nucleus; for this reason the "temporal" use of *quod* up through Late Latin (see Section 3.4 below) depends on the presence of a temporal nucleus in the main clause.

(49) Luc. 2,6: *und als sie daselbst waren, kam die zeit, das sie geberen solte* (Luther's translation, 1546)
'while they were there, the time came for her to deliver her child'

57. Lühr (1989: 161), Rousseau (2005: 60); for explanation of the accusative as extension of the bounding function of the direct object see Haspelmath (1997: 120–126).

(50) *Bell. Hisp.* 37,3: *quarto die nauigationis, quod … profecti … fuissent*
‘on the fourth day of sailing, after they had set out’

2. *Ubi*, *quoad*, and *ut* (post-classical also *quomodo* and *quemadmodum*) attest for Latin the typologically widespread extensions PLACE/MANNER → TIME (see Kortmann 1997: 176). The former is based on the universal space-time metaphor,[58] the latter on a special case of MANNER, the similative comparative clause (Hofmann & Szantyr 1965: 637–638), the comparison of two situations on the basis of a non-graduating *secundum comparationis* (e.g., Nep. *Han.* 7.4: *ut Romae consules, sic Karthagine quotannis annui bini reges creabantur*); this is here the reference time of the two situations, which are compared in their identity (51).

(51) Plaut. *Poen.* 486: *ut quisque acciderat, eum necabam ilico*
‘as each one fell, I immediately slew it’

3. These “relative clause-like” temporal clauses are, in a way, no more than special cases of relative constructions:[59] (a) They retain, as stated above, a minimal nucleus that fulfills the semantic and syntactic function of the higher nominal, because, on the one hand, owing to the endocentricity of the construction, the semantic categories of the higher nominal itself must be the same as for the nucleus; and because, on the other hand, temporal, locative, and modal relative clauses are limited to the adverbial syntactic function (Lehmann 1984: 319–320). (b) A minimal expression of the higher nominal remains necessary if the relative construction as a whole has some other syntactic function than adverbial. An example is *illud* in (52), which is not the nucleus but merely the marker of the syntactic function of the higher nominal.[60] (c) The higher nominal always remains expressible in the construction type of the correlative diptych[61] (*cum … tum*, *ubi … ibi*, *ut … ita*),

58. See Section 1.1 above; Kortmann’s material includes parallels to *ubi* from Balkan (e.g. Gk. ὅπου, Mod. Gk. εχείπου) and Germanic (Eng. *where*, Ger. *da*, e.g. *da sie der Meister ansah …*) languages.
59. On “relative clause likeness” see Hettrich (1988: 298–302); similarly Lavency (1985) and Touratier (1994: 621).
60. On these cases see Lehmann (1984: 308).
61. See Haudry (1973), Watkins (1976), Fruyt (2005), Rousseau (2005).

as in (54); the syntactic functions of the higher nominal and the nucleus are thereby expressed separately (Lehmann 1984: 321–322) and have the same "nominal" reference tracking as normal substantive relative clauses.[62] It is otherwise only in the secondarily developed *cum historicum*, which is not correlative and instead has a "verbal" mechanism of reference tracking, the "relative tense" (see Sections 1.3.2, 4.2.1). (d) The determination status of the relative construction is variable – it can be indefinite or anaphorically-definite. In the first case it forms an indefinite concept of time as in (53), in the other a definite one as in (54).

(52) Plaut. *Capt.* 516: *nunc illud est, cum me fuisse quam esse nimio mauelim*
'this is a situation in which I would much prefer to have been alive than still to be among the living'

(53) Nep. *Milt.* 1,5: *responderunt tum id se facturos, cum ille … uento aquilone uenisset Lemnum*
'they replied that they would do so, when he should come to Lemnus driven by north wind'

(54) Cic. *Att.* 6,1,13: *Moeragenes certe periit … haec non noram tum cum ⟨de ea re cum⟩ Democrito tuo locutus sum*
'Moeragenes is certainly lost; I did not know this when I spoke to your agent Democritus ⟨concerning that matter⟩'

3.2.1.2. Dum. *Dum* derives from a time particle, at least according to the most widely held opinion, argued by van der Heyde (1924), Brunner (1936), and Hofmann & Szantyr (1965: 609), that an atelic time specification "a while" underlies it,[63] which appeared in enclisis on imperatives of atelic verbs like *mane*, *tace*, *sine* (55) or telic verbs that introduce a new situation (56) and

62. According to Lehmann (2005, chap. 4), correlation is a form of cross-reference, which in turn is a relation between two nominals, at least one of them a pronominal.

63. Hofmann & Szantyr (1965: 609): < **dom*, deictic particle from pronominal stem **do-* (acc. sg. masc. as in *dum* and *quando*; cf. however fem. in *quondam*) with the temporal meaning 'a while' (*manedum* ∼ 'wait until'). Löfstedt (1922), on the other hand, begins with the deictic meaning 'then' with a change to temporal 'now'.

developed through reanalysis "*manedum, narro* → *mane, dum narro*" to the prototypical subordinator for the "time extent" function.

(55) Plaut. *Mil.* 1404: *mane, dum narro*
'stay while I retell it'

(56) Plaut. *Rud.* 778: *abi modo ego dum hoc curabo recte*
'now go away while I put things in order'

(57) Plaut. *Amph.* 696–697: *paulisper mane / dum edormiscat unum somnum*
'wait a moment till she has slept out just one sleep'

This implies two requisites within the first phase of development, present tense and postposition of the *dum*-clause.[64] In this phase a differentiation between the semantic functions SICOEX, TAQUEM, and SIOVER is possible only through *Aktionsart* and mood: a combination of two atelic situations yields SICOEX (55), a combination of atelic *dum*-clause with telic main clause yields SIOVER (56), and a combination of atelic main clause with telic *dum*-clause yields TAQUEM ((57), with signaling of the intention of the new situation by the subjunctive).[65] Thus the bounds between the semantic functions could remain fuzzy (Hofmann & Szantyr 1965: 615). *Scribere* in (58), used absolutely, indicates a "process", but with an object, an "accomplishment": the interpretations 'wait while he is still writing' and 'wait until he has finished writing' depend on whether the definite object given in the context of situation is brought into the definition of the *Aktionsart* or not.

(58) Plaut. *Bacch.* 737: *mane dum scribit*
'wait while he writes'

Only with the lifting of these limitations (the combination with the imperative is, according to Brunner (1936), severed by "echo answers" on the pattern

64. The former is still widely preserved in Old Latin. Löfstedt (1922: 410) provides the following statistics: indicative present 259, indicative imperfect 5, future 34, forms of the perfect stem 36.

65. See Hofmann & Szantyr (1965: 611); for the *Aktionsart* combinations in Classical Latin see Poirier (1996: 327–328).

mane dum redeo : *manebo dum redis*) could tense/aspect and clause position come in as an additional means of differentiation (Sections 4.1.2.1, 6.1.2).[66]

3.2.1.3. Simplicity. The aforementioned subordinators meet all of Kortmann's (1997: 152–155) criteria for "simple" subordinators: (1) diachronic priority and time stability: they belong to the oldest temporal subordinators and from Old to Late Latin they belong to its core resources;[67] (2) correspondence with simple deictics (*tum*, *ibi*, *ita*); of course, for the reasons stated in Section 1.1 above, this holds only for the "time location" subordinators, not for the "time extent" subordinator *dum*. Correspondingly, the correlation of *dum* etc. is preserved only on the structural, not the morphological, level; the "correlatives" are not simple deictics, but primarily polymorphemic time adverbials ('while' *dum*, *interim*, *interea*; 'so long as' *tantisper*, *tamdiu*; 'until' *usque*, *tantisper*);[68] (3) high level of polysemy and potential for interpretive enrichment and semantic change; for the former see Table 3, for the latter the use, already found in Old Latin, of *quoniam*, *cum*, and *dum* in causal/concessive functions (Bennett 1910: 99, 134), of *ubi* in conditional functions (Bennett 1910: 134), and *dum* in purpose functions (Bennett 1910: 270).

3.2.2. Complex subordinators

Except for *ex quo*, which developed late (see Section 3.2.2.3), the complex subordinators are based on comparative constructions (see Tarriño, this volume): *quam diu*; *postquam*, *priusquam*, *antequam*; *simul ac (ut)*.

66. The numerical relations of the three semantic functions can only be offered in overview, because the *ThLL* does not cover the material exhaustively: 'while' 2499 ~ 57 %, 'so long as' 1215 ~ 28 %, 'until' 672 ~ 15.5 %.
67. The exception is *quoniam*, which already in Old Latin is seen in transition to the CCC network. *Quando* largely disappears from the literary language of the classical period (Hofmann & Szantyr 1965: 606), but its vitality is displayed in the fact that it reappears in Late Latin and finally replaces *cum* in the Romance languages (Meyer-Lübke 1899: § 593).
68. For the distinction between purely structural and structural-morphological correlation see Fruyt (2005: 33).

3.2.2.1. Postquam. The only one of these subordinators that from the start had more than one semantic function is *postquam*, which via aspectual differentiation can express ANTE (in perfective aspect) and TAQUO (in imperfective aspect). *Prius-/antequam* and *simulac* are monosemous. The monosemy of *prius-/antequam* corresponds to the cognitive complexity of their semantic function POST (see Section 2); on the other hand, the monosemy of *simulac* 'as soon as' would have to be the result of the conventionalization of an original implicature[69] which at the start only occurred in telic situations: *simul atque* is originally 'at the same time as' (Oldsjö 2001: 340). Its preference for telic situations[70] as in (59), where simultaneity can be interpreted in the sense of direct contact between two situations, must have led to the generalization of the meaning 'as soon as', so that in Classical Latin it has become established in (the few examples of) atelic situations as well, as in (60).

(59) Caes. *Gall.* 5,3,3: *ex quibus alter simulatque de Caesaris legionumque aduentu cognitum est ad eum uenit*
'one of them, as soon as he became aware of the arrival of Caesar and his legions, approached Caesar'

(60) Sall. *Catil.* 7,4: *iuuentus simul ac belli patiens erat in castris per laborem usu militiam discebat*
'as soon as the young were ready for battle, they started to learn the art of war through labor at the camp'

3.2.2.2. Comparative constructions. The use of comparative constructions[71] in temporal functions is functionally motivated, since, as has been said

69. For this mechanism see Hopper and Traugott (1994: 72–75) with the example of Eng. *since*.
70. In the Old Latin material from Bennett (1910: 106), all the situations with *simulac* are telic or ingressive; the Caesar examples collected by Oldsjö (2001: 340) are all telic, like (59).
71. On comparison see most recently Stassen (1985), (2001), Haspelmath and Buchholz (1998), Baldi and Cuzzolin (2001), Lehmann and Cuzzolin (2004), Tarriño (this volume), Cuzzolin (this volume). The particle-comparative with *quam* comes from the correlative equative comparison type (Haudry 1973: 193, Bauer 1995: 150) and extends via negation (*non tam … quam*) to the non-equative comparison type, where it replaces the ablative (Hofmann & Szantyr 1965: 107, 593; Panagl 1973).

in Section 1.2, the reference-explicating function of temporal clauses is based on the comparison between its own reference time and that of the main clause. The temporal clause thus supplies the "standard" for the reference time with which the reference time of the main clause, the "comparee," is compared on the parameter same : not-same.[72]

All three main semantic types of comparison serve as base: inequative (*postquam*, *prius-/antequam*), equative (*quam diu*, *quotiens*; *simul atque/ac*), and similative (*ut* … *ita*). Thus according to their level of grammaticalization clause structures can be considered still special cases of comparative constructions, or already temporal clause structures based on comparative constructions. For the equative type the former holds so long as it is in a correlative diptych (*quam diu* … *tam diu*; *totiens* … *quotiens*); for the inequative so long as the subordinator is not univerbal (*post* … *quam*; *prius-/ante* … *quam*), as in (61). The temporal adverb then in effect corresponds to the "parameter" and *quam* to the "standard marker" of the comparative construction.

(61) Cic. *Att.* 6,3,1: *etsi nihil sane habebam noui quod post accidisset quam dedissem ad te Philogeni liberto tuo litteras, tamen … scribendum aliquid ad te fuit*
'although I had no news of anything that had happened after I sent a letter to you through your freedman Philogenus, it was necessary nevertheless to write to you'

The presence of the comparative model is shown in the "inequative" type (1) in that the same limitation on position prevails as in the corresponding comparative structure (*x maior est quam y*): the parameter comes before the standard, at first for functional reasons – it marks the comparison type whereby the polysemy is compensated for, which arose with the transfer of the "particle" comparative with *quam* from the equative type, and second because it is syntactically the head of the standard, and preposing the head corresponds to a widespread trend in Indo-European toward "right-branching" at the expense of the prior preference for "left-branching";[73] (2) in the existence

72. The terms comparee (= *primum comparandum*), standard (= *secundum comparatum*), and parameter (= *tertium comparandum*) come from Haspelmath and Buchholz (1998).

of variants with nominal "standards" as in (62), and in the modifiability of the parameter (see *pridie* in (63)).

(62) Caes. *Gall.* 1,44,7: *se prius in Galliam uenisse quam populum Romanum*
'that he came to Gaul before the Roman people'

(63) Cato *agr.* 113,1: *hoc facito pridie quam uinum infundere uoles*
'you must do it on the day before you wish to add the wine'

The transition to the temporal subordinator resulted from juxtaposition of the parameter and the standard marker (*post quam*) and the univerbation that resulted from it by reanalysis. Whether there is still juxtaposition, or univerbation has already taken place, can only be decided with the availability of additional evidence, such as an *ablativus mensurae* in (64), since word spacing or nonspacing is often merely a matter of convention.[74] After successful univerbation, an underlying inequative comparison type will only remain reflected in the position of the components – *postquam*, say, in contrast to *quoad*.[75]

(64) Cic. *div.* 2,46: *signum Iouis biennio post, quam erat locatum, in Capitolio conlocabatur*
'the statue of Jupiter was placed on the Capitoline two years after it was commissioned'

In the "inequative" type, the transition to the temporal clause is mirrored in the first place in the attainment of the same free word order that the "equative" had from the start (with *postquam* the possibility arises of iconic word order, see (65)), as well as in the occasional reintroduction of a redundant "parameter" in the main clause (see *ante* … *antequam* in (66)), and finally

73. See Watkins (1976), Hettrich (1988: 765), Haspelmath and Buchholz (1998: 289–290), Bauer (2001: 27f.), Bauer, this work, vol. 1.

74. See the discussion of the criteria in *ThLL* 10, 243,59–244,21.

75. In some Germanic languages, to this very day univerbation has not taken place, as in Icelandic: *eftir þvi (að)* 'after this (subordinator)', *fyrr emn* 'before than'; compare the univerbation/reduction scale for Germanic languages in Kortmann (1997: 262–263).

in post-Classical Latin in the retreat of *priusquam*, which still contains a genuine comparative, in favor of spatial *antequam*, which is typical of sequential relations (see Section 1.1 and Table 4). In the "equative" type, the transition is reflected in *simulatque* in the univerbation with morphological reduction to *simul* appearing already in Old Latin ((67), see Hofmann & Szantyr 1965: 638), and in the other subordinators in that the correlation is optional.

(65) Plaut. *Amph.* 227: *postquam id actum est, tubae contra utrimque occanunt*
'after the decision was reached, the trumpets pealed on both sides'

(66) Varro *rust.* 2,8,1: *ego … uos ante ire non patiar, antequam mihi reddideritis tertium actum de mulis, de canibus, de pastoribus*
'I will not allow you to go before you have given the third lecture, on mules, dogs, and herdsmen'

(67) Ter. *Phorm.* 823: *hic simul argentum repperit, cura sese expediuit*
'as soon as he found the silver, he was delivered from anxiety'

3.2.2.3. Ex quo. Aside from the *cum primum* type (Section 4.1.2), which is never obligatory, *ex quo* is the only true phrasal subordinator that through the end of the 1st century reaches a frequency of 0.5 %; as has already been said in Section 1.1 above no. 4, along with *antequam* it gives evidence for the expansion of the spatial expression format, which dominates in Late Latin.

(68) Verg. *Aen.* 2,163–170: *impius ex quo / Tydides … scelerumque inuentor Vlixes / … / … corripuere sacram effigiem …, / … / ex illo fluere … / spes Danaum*
'from the moment when godless Diomedes and Odysseus, the architect of outrages, carried off the statue of the god, from that point forward, all hope for the Danaans was lost'

That *ex quo* does not undergo univerbation, but the two semantic components of the semantic function TAQUO, time extent and location (see Section 2), are expressed analytically, agrees with Kortmann's (1997: 146–147) typological finding that this semantic function is preferably expressed analytically. The closest parallels are found in Greek, see (69); on the competition with normal relative constructions, see Section 6.2.

(69) Ar. *Ach.* 628: ἐξ οὗ γε χοροῖσιν ἐφέστηκεν τρυγικοῖς ὁ διδάσκαλος ἡμῶν, / οὔπω παρέβη πρὸς τὸ θέατρον λέξων ὡς δεξιός ἐστιν 'since our master first directed comic choruses, he has not once come forward to tell the audience how great he is'

3.3. Between Old Latin and Classical Latin: *cum* + subjunctive

The phenomenon most consequential for temporal clauses after Old Latin is the development of the *cum historicum* with which the desemanticization of the subjunctive in the temporal clause begins on a large scale (see Section 1.3.2 above). Its existence in earlier Old Latin is uncertain,[76] and the uncontroversial examples begin only after Terence (Lucilius, Afranius, G. Gracchus, see (98), (102)–(103) below), and thus later than the *cum causale*, which is certain in Terence (see (76)–(77) below), without offering a chance of observing its origin in detail (see Handford 1947: 167–168, Hofmann & Szantyr 1965: 620).

76. Mayer (1955) offers a collection of 37 examples from Naevius to Sisenna; which of them are to be regarded as genuine vs. the result of inaccurate quotation (an example in (21) above) is controversial. Hale (1891) and following him Handford (1947: 167–168 and Hofmann & Szantyr 1965: 622) tended to marginalize the number of genuine examples and placed the origin of the *cum historicum* in the transmission gap between Old Latin and Classical Latin. Long considered the earliest metrically verified example, Ter. *Eun.* 22 is punctuated by Hofmann & Szantyr (1965: 622) following Vetter (1952) as *perfecit sibi ut inspiciundi esset copia, magistratu' quom ibi adesset. occeptast agi.*, which yields an oblique subjunctive. Mayer (1955), on the other hand, explains the absence of the *cum historicum* in Plautus via the genre-specific limitation of the *cum historicum* to literary texts. Skutsch (1985: 33) follows him on Enn. *ann.* 1,28 (*quom lumen nox intempesta teneret*); his attempt to verify the *cum historicum* there by referring to the *cum historicum* in Lucilius, however, overlooks the approximately two-generation difference between the two authors.
The inscriptional material, collected in Siegert (1939), is largely unproductive, since most of the examples are cases of modal attraction. The unambiguous examples are late: the first offered by Siegert is from 58 BCE.

In Plautus, everything is in the indicative that we would later expect to be in the subjunctive, as in (70) (∼ *cum historicum*) and (71) (∼ *cum causale*); even in authors who do admit the subjunctive *cum*-clause, the indicative is often retained, as in (74).

(70) Plaut. *Mil.* 506–507: *inspectauisti meum apud me hospitem / amplexam amicam, quom osculabatur, suam*
'you have been spying on my guest embracing his girlfriend when they kiss'

(71) Plaut. *Most.* 29: *nam ego illum corruptum duco, quom his factis studet*
'for I do consider him ruined, as he devotes himself to these tasks'

(72) Plaut. *Asin.* 80–81: *praesertim quom is me dignum quoi concrederet habuit, / me habere honorem eius ingenio decet*
'above all because he held me worthy of his trust, I have to hold his character in high regard'

(73) Plaut. *Bacch.* 536–537: *saluos quom peregre aduenis / cena detur*
'because you are back safe and sound from abroad, let supper be served'

(74) Lucil. 1239–1240: *cenasti in uita numquam bene, cum omnia in ista / consumis squilla*
'you have never eaten well in all your life because you eat up everything from the crab'

A causal or concessive meaning as in (71)–(74) can be based on indicators that are incompatible with temporal interpretation. On the one hand, the independent time reference in (74) belongs here (see Section 1.3.1); on the other, the expression of a conclusion like *duco* in (71) and the presence of an indicator of the speaker's attitude like *praesertim* in (72), both markers of a causal relation on the propositional clause combination level. In the absence of such indicators (73), the causal meaning is simply based on a conversational implicature – that is, on the application of a relevance criterion by the hearer, who must locate the likeliest position of the clause's content on the "informativity scale" (see Hopper and Traugott 1994: 72–75 and Kortmann 1997: 153–154 following Atlas and Levinson's (1981) *Principle of Informativeness*: "The 'best' interpretation of an utterance is the most informative one consistent with what is noncontroversial").

3.3.1. The subjunctive in the relative clause

As for the prehistory of the *cum*-clause, since Hale (1891) no one has doubted a connection with the development of the subjunctive in the relative clause. A tangible indication is the obvious connection of *praesertim cum* with *praesertim qui* (see Hofmann & Szantyr 1965: 620). Already in Plautus the latter sometimes appears in the subjunctive (Hofmann & Szantyr 1965: 560), see (75), but *praesertim quom* is still in the indicative (72); in Terence, on the other hand, *praesertim cum* + subjunctive already occurs (76), as well as other kinds of causal *cum*, such as expositive and explicative in (77) and connective in (78), but none in the tenses typical of the *cum historicum* (see n. 76 above). Likewise the attributive type *fuit tempus cum* + subjunctive is found in Terence for the first time, see (79).

(75) Plaut. *Cist.* 240–241: *ei me* ⟨*tot tam*⟩ *acerba facere in corde* :: *Frugi nunquam eris* / :: *Praesertim quae coniurasset mecum et firmasset fidem*
'O lord, that I caused her such grief! :: You will never be any good. :: Especially because she had sworn an oath to me and had pledged her loyalty'

(76) Ter. *Hec.* 704–705: *nam puerum iniussu credo non tollent meo, / praesertim in ea re quom sit mi adiutrix socrus*
'for without my consent, I do not believe that they will bring up the child, especially as on that point my mother-in-law will second me'

(77) Ter. *Haut.* 413–415: *uerum quom uideam miserum hunc tam excruciarier / eius abitu, celem tam insperatum gaudium, / quom illi pericli nil ex indicio siet?*
'when I see that (the boy's) father is so pained by (his son's) departure, am I nevertheless to hide such an unexpected joy when the discovery poses no danger to (the boy)?'

(78) Ter. *Phorm.* 202–203: *ergo istaec quom ita sint* (v.l.: *sunt*)*, Antipho, / tanto mage te aduigilare aequomst: fortis fortuna adiuuat*
'well, since these things are so, Antiphon, stay on your guard that much more: fortune aids the strong'

(79) Ter. *Haut.* 1024–1026: *si umquam ullum fuit tempu', mater, quom ego uoluptati tibi / fuerim, … / obsecro ei(u)s ut memineris*
'if there was ever a time, mother, when I was a source of joy to you, please remember it'

Hale's suggestions about the development of the subjunctive *cum*-clauses themselves, however, have not encountered unanimous approval.[77] The criticism summarized in Hofmann & Szantyr (1965: 620) amounts to this: that the material offered by Hale and then by Mayer (1955) suffices to convey an idea of the development of the appositive subjunctive relative clause (75) into the *cum causale* (76)–(77), but not to place the *cum historicum* into the development. We may add that the material also makes the path from the attributive subjunctive relative clause to the attributive *cum*-clause with subjunctive (79) comprehensible.

1. Hale reconstructed three phases of development. The first phase resulted in the formation of a "qualitative" subjunctive in attributive relative constructions by grammaticalization of the originally semantically motivated subjunctive (80), namely in formal (81) or semantically negated relative constructions (see *quemquam* in (82));[78] in the process the modal function of the subjunctive is overwritten by the (explicit or implicit) negation.[79] This subjunctive is then extended to patterns where its conditions of origin are no longer met: to indefinite relative constructions with presuppositions of existence as in (83), whereupon the relative clauses labeled "qualitative" and "consecutive" by Hale came into existence.

(80) Plaut. *Rud.* 211–212: *aliquem uelim, qui mihi … / … uiam … monstret*
'I would like to have someone who would point out the way to me'

77. See Handford (1947: 168–171), Mayer (1955), and the overviews in Hofmann & Szantyr (1965: 620), Calboli (1966–1968, 1998).

78. For the (mostly) negative presuppositions of *quisquam* see Orlandini (1983), and Bertocchi, Maraldi and Orlandini (this work, vol. 2).

79. Negation is in fact the logical extreme of the objective modality, where possibility and factuality fall together (see the discussion in Givón 2001: 369–370).

(81) Enn. *frg. var.* 4: *a sole exoriente supra Maeotis paludes / nemo est qui factis aequiperare queat*
'from the sun rising over the marshes of Maeotis there is no man who could equal my deeds'

(82) Plaut. *Amph.* 1010: *neque domi neque in urbe inuenio quemquam qui illum uiderit*
'neither at home nor in the city do I find anybody who has seen him'

(83) Plaut. *Men.* 457: *adfatim est hominum, in dies qui singulas escas edint*
'there are plenty of people who eat only one meal per day'

Hale saw the second phase (still in Plautus) characterized by the further development of the qualitative, "consecutive" relative clause to the "consecutive-causal" relative clause; it would be possible through examples like (84) that permit both interpretations (Hale 1891: 318, paraphrases 'sind sie stumm, daß sie nicht sprechen?').

(84) Plaut. *Rud.* 1113: *quid, istae mutae sunt, quae pro se fabulari non queant?*
'what, are these women mute, that they cannot speak for themselves?'

From that would emerge, thirdly, the transition to the *quom*-clauses, in fact first the "consecutive" type (86), whereupon the opposition indicative : subjunctive = determinative : qualitative (*quando?* : *quo statu rerum?*) could be introduced into the *cum*-clauses (Hale 1891: 191, compare (85) with (86)). "Through strengthening of the qualitative idea" would result, finally, the further development to the *cum causale*, and by its weakening to the *cum historicum* (Hale 1891: 194).

(85) Cic. *epist.* 11,27,4: *secutum illud tempus est cum me ad Pompeium proficisci siue pudor meus coegit siue officium siue fortuna*
'this followed the time when my sense of decency, my sense of duty, or my fate compelled me to seek out Pompey'

(86) Varro *rust.* 3,1,1: *(uita) antiquior enim multo rustica, quod fuit tempus, cum rura colerent homines neque urbem haberent*
'the older lifestyle is more pastoral by far, because this was a time when men tilled fields and lacked cities'

2. The first phase of Hale's reconstruction is still widely accepted today. The subjunctive is reduced, via the outlined development, to a pure signal of indefiniteness and becomes the marker of intensionality, as is also known from other languages.[80] The opposition indicative : subjunctive in the attributive relative clause thus becomes a means of expression of the state of determination: there arises the opposition extensional : intensional, or, in the words of M. Lavency,[81] "determinatif : qualificatif". This opposition continues into the attributive *cum*-clauses. This is simply the natural result of the fact that (85) and (86) are nothing more than the fusion type of the temporal relative construction described in Section 3.2.1 above (similarly already Hale 1891: 189).[82]

3. What poses problems, however, is the link between phases 1 and 2, "consecutive → causal." A consecutive interpretation, such as that posited by Hale for (81)–(83) above, presupposes either the presence of a gradable concept as in (87) (cf. (16) above, an instance of a restrictive consecutive clause) or an appositive relative clause as in (84) above. A gradable concept is not available in (80)–(83). An appositive reading might be possible in (80), albeit not with a consecutive relation, but rather with a purposive ('I would need someone, so that he shows me the way'). In the existence clauses found in (81)–(83), however, the appositive reading is impossible, since there the relative clause is required for concept formation, that is, for constituting the higher nominal; or, failing that, the existence clause remains semantically empty (**nemo est*; **adfatim est hominum*). Here the relative clauses are thus purely attributive clauses without the possibility of an adverbial interpretation, which on the contrary is possible in the putative intermediate

80. Cf. Fr. *je cherche une étudiante qui sache l'espagnol*, see Lehmann (1984: 290), Palmer (1986: 223–224), for Greek see Gerö (2003).
81. First in Lavency (1975/76), then in Lavency (1985) and (1989).
82. Still (79) corresponds to the indefinite-negative relative clause (82), the starting-point of the desemanticization process; (86) corresponds to the grammaticalized relative clause type (83).

type (84), in which the relative clause is appositive. Thus (84) does not presuppose the type represented by (80)–(83) and is therefore not a necessary link in the chain of development reconstructed by Hale.[83] Correspondingly, Hale's term "qualitative" has a different meaning in phase 1 than in phase 2: because of the different levels of integration of attributive and appositive relative clauses,[84] the subjunctive in the attributive relative clause is connected with the state of determination of the nominal (indefiniteness, in contrast to the indicative, which can signal definiteness),[85] whereas in the appositive relative clause it is connected with the state of assertion of the relative clause (non-asserted, in contrast to the indicative, which is capable of marking assertion). The same then holds as well mutatis mutandis for the difference between the attributive subjunctive *cum*-clause like (86) and adverbial subjunctive *cum*-clauses like (88). In (86) the subjunctive is connected with indefiniteness of the relative construction and thus, because it attributes a time concept, with indefinite time reference, indeed in opposition to the definite indicative variant (85). The subjunctive in the adverbial *cum historicum* in

83. The problem concerning the link between phase 1 and 2 is clearly laid out by Handford (1947: 168–169); see also Hofmann & Szantyr (1965: 620). On the appositive reading of indefinite relative clauses see Lehmann (1984: 265–267), on the adverbial reading of appositive relative clauses see Lehmann (1984: 272).

84. See Lehmann (1984: 261–263, 270–274, 286–291); attributive relative clauses are relational nominals and hence neither asserted nor presupposed. Appositive relative clauses, on the other hand, can in extreme cases just like main clauses have an autonomous illocutionary function and are only connected with the main clause by an anaphoric relation (overlooking the fact that appositive relative clauses do not constitute a unitary category and that assertion is rather associated with the postposed relative clause, whereas parentheticals belong rather to the presupposition of the entire clause; see Lehmann (1984: 272–273). That corresponds to the "principle of the inverse relation": a higher level of integration implies a lower level of autonomy and vice versa, see Raible (1992), Cristofaro (2003: 195–196).

85. According to Givón (2001, 2: 176), this distinction exists because indefinite relative clauses are non-anaphoric but definite relative clauses are in a broad sense anaphoric, because they use knowledge common to speaker and hearer to establish the reference of the higher nominal. This is the first of three kinds of *grounding of definite referents* identified by Givón (2001, 2: 176): (a) "to their anaphoric trace in the episodic memory of the current text" (b) "deictic grounding to the current speech situation" (c) "framebased grounding to generic lexical knowledge"

(88), on the contrary, is connected with the state of assertion of the temporal clause (non-asserted, see below).

(87) Cic. *Lael.* 23: *quae tam firma ciuitas est, quae non odiis ... funditus possit euerti?*
'which city is so strong that it cannot be destroyed by hate?'

(88) Caes. *Gall.* 4,26,4: *quod cum animaduertisset Caesar, scaphas longarum nauium ... militibus compleri iussit*
'and when that had come to Caesar's attention, he commanded that the skiffs of the warships be filled with soldiers'

4. The appositive type (84) thus did not develop from the attributive pattern (83). Rather, according to Hofmann & Szantyr (1965: 558, 620) an independent, semantically motivated subjunctive underlies it, namely, a deliberative. Thus something like *you're crazy. How can you ... ?* would underlie (89) and (90). The structure that emerges from this, main clause + appositive relative clauses (Hale's "consecutive-causal"), is "bicausal":[86] it has a consecutive reading on the predicational clause connection level ('you're crazy, so that ... ") and a causal reading on the propositional clause connection level, in which the main clause draws a conclusion from the presupposed subordinate clause ('you're crazy, because you ... ').[87] The latter relation is, because of the topicality of the relative clause, the communicatively central one. This relative construction is established as a morphologically marked competitor of the old unmarked indicative pattern (91). The propositional clause connection level of these clauses is reflected in the indicators of subjective modality (*certo* in (90), *quidem* in (91)). The "bicausal" examples (90) and (91) are thus a special case of the relative clauses that have the function of establishing the subjective modality of the main clause. A "monocausal" example is (92),

86. In Comrie's (1986) sense; for "bicausal" consecutive clauses see Heberlein (2003).
87. Because of the obligatory postposing of the relative clause, the conclusion is a deductive "enthymeme". For the discourse level of the "causal" relative clause see already Kühner & Stegmann (1914, 2: 292): "Er [the subjunctive] steht, wenn der Grund kein objektiver ist, sondern sich aus dem Wesen und Charakter der Person oder Sache ergibt". Similarly Bennett (1910: 293): "The reason or cause expressed by these clauses is regularly not the motive or impelling cause of action, but the ground for the assertion made by the speaker".

which establishes the level of the speaker's epistemic (un)certainty (indicated by *utpote*). Assumed for this function is the appositivity of the relative clause, through which operator dependency of the causal relation (see Section 1.3.1) is blocked. Correspondingly, these relative clauses could be paraphrased with a *quoniam*-clause, which typically is a modifier on the propositional level.[88]

(89) Plaut. *Aul.* 769: *sanus tu non es, qui me furem uoces*
'you are not in your right mind, that you would call me a thief'

(90) Plaut. *Men.* 312–313: *tu quidem hercle certo non sanu's satis, / Menaechme, qui nunc ipsus male dicas tibi*
'you really are not in your right mind, Menaechmus, that you would now rail against yourself'

(91) Plaut. *Men.* 309: *Insanit hic quidem, qui ipse male dicit sibi*
'this man really is crazy, who rails against himself'

(92) Plaut. *Cist.* 316–317: *haec herclest, ut ego opinor . . . / suspiciost eam esse, utpote quam nunquam uiderim*
'by Hercules, this is the woman, I think. I only suspect that she is the one, given that I have never seen her'

3.3.2. From relative clause to cum causale/historicum

Once the "consecutive-causal" relative clause of the type (84) has been lost as the connecting link between the attributive-intensional relative clause and the *cum historicum*, Hale's chain of development falls into two separate strands:

1. From the attributive subjunctive relative clause to the attributive subjunctive *cum*-clause (cf. Section 3.3.1 no.2 above).

2. From the appositive relative clause to the *cum causale*. The *cum causale* has the "causal" appositive relative clause on the pattern of (89) as a prerequisite. This is apparent from the aforementioned time-shifted parallels *praesertim qui + subjunctive* → *praesertim quom + subjunctive* (compare (75) with (76), and (93)). This development too is consistent, since with it in the two clause types appositive relative clause and temporal clause, which

88. For the function of *quoniam* specifying the epistemic modality of the main clause, see Bolkestein (1991: 437–439).

from the beginning are not marked for causal/concessive semantic function but can typically be awarded it by pragmatic inferencing (Lehmann 1984: 262–273, Kortmann 1997: 188–189), the same expression format for this semantic function is made available.

(93) Ter. *Hec.* 529–531: *sed demiror / quid sit quam ob rem hunc tanto opere omnis nos celare uolueris / partum, praesertim quom et recte et tempore suo pepererit*
'but I am amazed at how fervently you wanted to conceal the birth from us all, especially because it was timely and without complications'

In Terence the *cum causale* is functionally fully parallel to the causal appositive relative clause as in (94): it has a propositional discourse level and establishes the subjective modality of the main clause. This can be signaled by the aforementioned marker of speaker's attitude *praesertim* ((76), (93)) and assumes the nonrestrictivity of the *cum*-clause. The latter is indirectly expressed in the fact that the *cum causale* does not appear in correlative diptychs until post-Classical Latin and thus likewise is not operator-dependent.[89] This type continues through later Old Latin ((95), with modality marker *inde*), into Classical Latin, see (96) and (97) with expression of epistemic certainty in the main clause (*necesse est*) or the subordinate clause (*certe*).[90] The capacity for independent time reference serves as an additional signal of the nontemporal relation of the *cum*-clause as in (95). Such nonrestrictive special cases of adverbial relationships are called adjunct relations below, following Lehmann (2005).[91]

89. See Section 1.3.1; on noncorrelative *cum* see Handford (1947: 169). For *ideo ... cum* the *ThLL* (7.2, 1217,84–218,6) offers only four examples, the first in Livy (45,8,6); *cum ... ideo* appears first in the middle of the 2nd century (Iulian. *Dig.* 28,2,13); similarly for the correlation with *idcirco* and *propterea*. Contrast the many examples of *ideo ... quia*.

90. Naturally the propositional discourse level does not need to be explicitly signaled, cf. (94); it is found likewise in (77) and (78), where a preceding causal clause motivates the propositional attitude of the speaker, and a following one explicates it: his justification question in (77), his wish in (78).

91. Lavency (1976, 1985, 1989) speaks of *compléments adjoints* in contrast to *cum relativum*, which is a *complément conjoint*. See Section 1.3.1 above.

(94) Ter. *Haut.* 518–519: *sed te miror, Chreme, / tam mane, qui heri tantum biberis*
'but I am surprised at you, Chremes, up so early, after drinking so much yesterday'

(95) Gracch. *or. frg.* 27: *cum a seruis eorum tam caste me habuerim, inde poteritis considerare, quomodo me putetis cum liberis uestris uixisse*
'given the fact that I kept myself away from their slaves so virtuously, from this you should ask yourselves how you could believe that I have lived with your children'

(96) Cic. *nat. deor.* 2,79: *cumque sint in nobis consilium ratio prudentia, necesse est deos haec ipsa habere maiora*
'because there is wisdom, judgment and prudence in us, the gods necessarily possess these in greater quantities'

(97) Cic. *fin.* 3,48: *haec mirabilia uideri intellego, sed cum certe superiora firma ac uera sint, … ne de horum quidem est ueritate dubitandum*
'I know that these things seem unbelievable, but, given that the former conclusions are undoubtedly unassailable and true, there can be no doubt about the veracity of the latter'

3. Both clause types finally extend to the predicational connection level. Here the *cum causale* has the temporal priority, since (98) (before 121 BC) shows that its extension had already taken place in later Old Latin. (98) already corresponds to classical examples like (99); both have dependent time reference, are without indicators of speaker's attitude, and do not stand in a reason–conclusion relation. The appositive relative clause, on the other hand, accomplishes this development only in Classical Latin (100).[92] This delay is explained by the difference that the relative clause characterizes a first-order entity, the *cum*-clause on the other hand a situation. A causal relation between two situations is naturally easier to observe directly than a relation between

92. This conclusion differs from that in Kühner & Stegmann (1914, 2: 292, 346), according to which the development of the *cum causale/concessivum* would proceed from an Old Latin predicational relation to a classical propositional relation, thus the reverse of the direction for the appositive relative clause; this cannot be verified from his data.

the quality of a person and a situation, where it by preference relies on the reflection of the speaker.

(98) Gracch. *or. frg.* 49, Gell. 15,12,3: *ei obuiam bubulcus de plebe Venusina aduenit et per iocum, cum ignoraret qui ferretur, rogauit num mortuum ferrent*
'an oxherd from Venusina approached him and, because he didn't know who was being transported, asked as a joke whether they were carrying a dead man'

(99) Nep. *Them.* 1,2: *qui cum minus esset probatus parentibus, … a patre exheredatus est*
'because his parents thought little of him, he was disinherited by his father'

(100) Cic. *rep.* 6,10: *deinde, ut cubitum discessimus, me et de uia fessum, et qui ad multam noctem uigilassem, artior quam solebat somnus complexus est*
'afterward, when we retired to our rooms, I was embraced by a sleep deeper than normal, because I was exhausted from the trip and because I had stayed awake so far into the night'

4. The date at which the *cum historicum* made its appearance in the development just described cannot, as said at the beginning, be reconstructed, for lack of evidence. If we take the "skeptical" position, which dates the onset of the *cum historicum* later than Terence (see n. 76), then the starting-point must be the temporal priority of the *cum causale*. In view of the evident intersection of properties of *cum historicum* and *cum causale*, which is already visible in the early examples (98) and (101), then the *cum historicum* would have to be considered a special case branching off from the *cum causale*: (a) Both have the status of adjunct; the features lack of correlativity and nonreplaceability by a simple deictic also hold for the *cum historicum*, which has thus become detached from the "relative clause affine" pattern of the *cum relativum* (see Section 3.2.1). The adjunct status is responsible for the frequent "causal aftertaste" (Wackernagel 1926, 1: 244) of the *cum historicum*. (b) The *cum causale* has an optional predicational discourse level, the *cum historicum* qua temporal clause an obligatory one (see Section 1.3.1). In referring to a preterital main clause, with which the *cum historicum* appears

exclusively, both employ the same means of expression and, according to Luraghi's (2001) finding, to a considerable extent have the same expository and explicative discourse functions. It follows that in the imperfect and pluperfect the boundary between causal and temporal readings is notoriously fuzzy and dependent on pragmatic inferencing. If a causative/concessive interpretation is not unambiguously preferred ((98), (101)) or is blocked ((102), (103)), the interpretation can remain ambiguous (104).

(101) Lucil. 898: *huc, alio cum iter haberet, praeteriens uenit*
'although he had a different itinerary, he passed this place along the way'

(102) Afran. *com.* 232: *liber natus est, ita mater eius dixit, in Gallia ambos cum emerem*
'he is freeborn; so said his mother when I bought them both in Gaul'

(103) Sisenna *hist.* 78: *denique cum uariis uoluntatibus incerta ciuitas trepidaret, Pomponius cum uelite superiorem locum insedit*
'when the irresolute city at last wavered because of its unsteady resolve, Pomponius occupied the upper part with lightly armed soldiers'

(104) Quadrig. *hist.* 33: *cum non possetur decerni, utrius putaretur uictoria esse*
'when/because it proved impossible to determine who would likely be victorious ...'

Thus on the predicational level, *cum causale* and *cum historicum* are distinguished only insofar as the former is specified by pragmatic enrichment. Assuming the historical priority of the *cum causale*, the *cum historicum* can be seen as its desemanticized variant. It would then stand at the end point of a multistage desemanticization process, in which the subjunctive in the *cum*-clause is reduced to the marker of the adjunct function: (a) The subjunctive, originally the marker of a "subjective reflecting moment" (Hofmann & Szantyr 1965: 558–559) in an independent clause, changes first in appositive relative clauses to the marker of a subjective propositional clause connection relationship (conclusion, support of the main clause assertion), in which function it also turns into *cum causale*, whereupon the previously unmarked extensions appositive relative clause/temporal clause → (propositional) causal

clause acquire an expression format. (b) With the transfer into the narrative register, the relation to the speaker is lost and the *cum*-clause is extented to the predicational level, whereupon the subjunctive also becomes a marker of a causal relation between a background situation and the main clause. (c) Ultimately, the subjunctive, beginning with patterns that like (104) are ambiguous between causal and merely temporal relationships, is reduced, via semantic bleaching, to a signal of syntactic adjunct status and the background discourse function associated with it.

This process leads to a contradictory result: On the one hand, with the *cum historicum* it creates an expression format for *cum*-clauses with the backgrounding discourse function (adjunct, nonrestrictive) in opposition to genuine temporal clauses with the semantic function time location (restrictive). It thus corresponds to an important motivation for syntactic change, the desire for differentiation.[93] On the other hand, however, it undermines another, equally motivated process, namely, the assignment of an expression format to the semantic extension temporal → causal, which now remains operative only outside the narrative register.

3.4. The subordinators in Late Latin

While the inventory and the functions of the temporal subordinators, aside from the development of the *cum historicum*, exhibit a high degree of stability from Old Latin to the beginning of Late Latin, far-reaching changes appear in Late Latin.[94] The most important strands of development are gath-

93. This is true not least in the realm of subordination, see Schlieben-Lange (1992: 352): "There can be no doubt that the necessity of distinguishing different types of relations between propositions is the central motive for the development of conjunction systems".
94. The development of the subordinators in Late Latin is well researched. Besides the data in the Romance handbooks like Meyer-Lübke (1899), Ettmayer (1936), Gamillscheg (1957), and the relevant chapters of Norberg (1943), see especially the dedicated studies of Imbs (1956), Herman (1963), W. Stempel (1964: 385–460), and De Dardel (1983: 75–166); a typological classification of the development is found in Schlieben-Lange (1992).

ered below: (1) the reorganization of the stock of one-word subordinators, (2) the reduction of complex subordinators, and (3) the expansion of phrasal subordinators.

1. The one-word (post-)classical temporal subordinators that continue into the Romance languages are *quando, ubi*, and *quomodo*, but not *ut* or *cum* (Meyer-Lübke 1899: 642–652, W. Stempel 1964: 386–390; (105)–(107)). *Cum* and *ut* are in fact found until the end of Latin (see below on (116)), but there are indications of their future disappearance, namely that in non-classical subordination, *cum* and *ut* are more frequently replaced by *quomodo/dum/quod* than vice versa (Herman 1963: 120), and that *cum* and *ut* often appear in pleonastic combinations ((108), (109)). These are, according to Herman (1963: 114), hypercorrections, which preserve the two vanishing subordinators as "literarily valuable," but in which the actual temporal meaning is taken over by the "popular" subordinator with which they are combined, for instance *quando* in (108). Such combinations with *ut* are common (see Bonnet 1890: 319 on Gregory of Tours), including *mox ut*, which in turn is later simplified to *mox* (see no. 3 below). The fall of *ut*, however, does not mean that the traditional extension MANNER → TIME came to a standstill, since *ut* was replaced by *quomodo* (temporal since the *Itala*: Hofmann & Szantyr 1965: 650) and *quemadmodum* (see De Dardel 1983: 121–125), which took over its temporal and CONTING semantic functions, see (110) and (111) (further examples in Meyer-Lübke 1899: 642–652):

(105) *jo vos preio, quant vos l'areis trova, que vos li preis que el non cai vigne*
'I beg you, when you have found him, that you ask him that he not come here' (Provençal, 13th c.)

(106) Dante *Purg*. 17,40: *si frange il sonno, ove di butto / nuova luce percuote il viso chiuso*
'(as) our sleep is broken, when suddenly new light hits the closed eyelids'

(107) Boccaccio, *Decameron* II,2,5: *deliberarono che come prima tempo si vedessero, di rubarlo*
'they decided, as soon as they saw each other, to steal it'

(108) Chiron 40: *cum quando enim iumentum ex uia … laborauerit … dolorem accipiet*
'when a beast of burden struggles because of the condition of the road, it will suffer pain'

(109) Lucif. *reg. apost.* 1: *mox ut omnes reges uidit alienigenas interfectos, fabricat eam rem per quam possint in deum delinquere filii Israel*
'as soon as he saw that all of the foreign kings had been dispatched, he designed the trick by which the sons of Israel would be able to turn against God'

(110) *Itin. Eger.* 5,1: *singula, quemadmodum uenimus per ipsam totam uallem, semper nobis sancti illi loca demonstrabant*
'while we were passing through the valley, those holy men showed us each place that we came to'

(111) Theod. *De situ terrae sanctae* p. 146 Geyer: *ibi est uxor Loth, quae facta est statua salis, et quomodo crescit luna, crescit et ipsa*
'there stands the wife of Lot, made into a salt statue, and, whenever the moon waxes, she increases as well'

2. *Cum* experienced additional competition from *dum* (cf. Serv. *Aen.* 1,697: *sane sciendum, malo errore 'cum' et 'dum' a Romanis esse confusa*). The basis is the functional intersection of the two subordinators within the semantic function SIOVER, specifically in the inclusion of the main clause (see Section 4.1.2.1). Individual examples where *dum* is used in the sense of a simultaneous *cum historicum* are already found in classical times (see (112) and *ThLL* 5, 2219,34). The bulk of examples begin in the 3rd century, where *dum* indifferently takes on the functions of *cum historicum* and *cum relativum*; on the latter see the correlation *tunc … dum* in (113). In the 4th century, finally, the examples of anterior *dum* with pluperfect subjunctive begin (see (114)), whereupon the transfer of the functions of *cum historicum* is complete and *dum* is universally used for time location and time extent functions. The extension to the pluperfect, however, is obviously limited. An examination of three late authors (Apollonius/Recension A, Gregory of Tours, Fredegar) yields the picture that *dum* in the first place competes with the *cum historicum* within the semantic function SIOVER, the old intersection of the two subordinators (see, e.g., (115)), but the expansion to the ANTE function

Table 5. Dum and *cum* in the Apollonius novel, Recension A

	present indicative	Future 2	imperfect subjunctive	pluperfect subjunctive
cum	7 (hist.)	4	23	22
dum = *cum*		5	11	3
dum 'while'	13			
dum 'until'			1	

is not consistently carried through. Table 5 provides the statistics for Apollonius.

(112) *Bell. Hisp.* 23,2: *hic dum in opere nostri distenti essent, complures ex superiori loco aduersariorum decucurrerunt*
'while our men were busied with work, a division of enemies made a rapid advance from higher ground'

(113) Tert. *adv. Marc.* 4, p. 482 Kroym.: *quos (matrem et fratres) utique norat qui adnuntiarat, uel retro notos uel tunc ibidem compertos, dum … ipsi nuntium mandant*
'these (i.e., mother and brothers) (the doorkeeper) who announced them at least knew, either from the past or from the moment they wished to be announced'

(114) Amm. 18,5,2: *et dum totius orientis didicisset interna … fugam ad Persas … conabatur*
'and after he had become familiar with the interior of the Orient, he attempted to flee to the Persians'

(115) *Hist. Apoll.* 13: *qui dum cum suis ad ludum luderet approximauit se Apollonius in regis turba*
'while the king applied himself to games with his friends, Appolonius insinuated himself into his entourage'

A similar state of affairs is found in Gregory of Tours (see Bonnet 1890: 319, 685–686): the preferred tenses are present indicative and imperfect sub-

junctive; examples in the pluperfect are extremely limited.[95] In Fredegar too, by far the most common tense is the imperfect (see (116), with *cum* and *dum* side by side). *Dum* thus has a far higher affinity for its old semantic function SIOVER than for its newly minted ANTE function. The old SIOVER function of *dum* 'while' is the only one that has come down to the Romance languages, specifically in *dom(i)entre*, a univerbation of the original correlative combination *dum … interim*.[96] According to *ThLL* 5, 2235,4, these two elements are found in juxtaposition from the 4th century on, see (117). How far *dum* expands into the realm of *cum* depends on how literary the text in question is. According to Milani (1969: 429), in the dedicated "classicistic" syntax of the *Itinerarium Egeriae* still "the use of *dum*, *donec* is classical", and the *cum historicum* is retained just as is the iterative *cum*;[97] only the *cum relativum* is nearly always replaced by *quando*. And the other way round, another consequence of the approach of the two subordinators is that *cum* encroaches on the territory of *dum* 'while', so that in Apollonius (see (118)), alongside 13 examples of *dum* in the meaning 'while' there are 7 comparable ones with *cum*.

(116) Fredeg. *chron.* 4,78: *cumque priliari cepissent … terga uertentes, dum cernerent se esse superandus, … se locis tutessimis … collocantes latetarint*
'and after they had started the battle, they turned their backs to the enemy, and when they recognized that they would be defeated, they gathered themselves together in the most defensible places and kept themselves hidden'

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95. A scan of books 1–4 of the *Historia Francorum* reveals no examples of the pluperfect; some are found in Bonnet's data, but in very limited number. In contrast, in books 1–4 there are 102 instances of *cum historicum* in the 3rd person pluperfect. If *dum* really were a complete replacement for the *cum historicum*, then we would expect a ratio between the imperfect and the pluperfect similar to what is found for the classical *cum historicum* (in the corpus 358 : 233, or about 3 : 2).
96. See Meyer-Lübke (1899: 607); W. Stempel (1964: 421f.); Herman (1963: 102, 208–212).
97. Milani (1969: 418–420) indexes 36 examples of *cum historicum* and likewise 36 examples of *cum iterativum*, which generally, in conformity with a trend observable ever since Livy, is in the subjunctive.

(117) Claud. Don. *Aen*. 11,20: *interea, inquit, hoc est dum interim …*
‘ ‘*interea*’, he says, which means ‘*dum interim*’ … ’

(118) *Hist. Apoll.* 7: *et cum haec Tyro aguntur, superuenit ille Taliarchus*
‘and while these things were happening in Tyre, the above-mentioned Taliarchus arrived’

3. *Reduction* of subordinators that are based on the comparative construction is already met with in Old Latin with the simplification of *simul atque* to *simul* (in Terence, see Bennett 1910: 106). This process, which is functionally motivated by the principle of economy,[98] is very distinctive in Late Latin. Affected by it are the other subordinators that arise from the comparative construction; thus *antequam* and *postquam* are replaced by *ante* and *post(ea)*, see for example (119). Late phrasal subordinators that came from a subordinator proper and an adverb then also underwent the same trend; examples are *interim* for *dum iterim*, *usque* for *usque dum*, and the aforementioned *mox* for *mox ut* (*ThLL* 8, 1553,1–76), which takes over the semantic functions ANTE and IMANTE originally expressed with *ut*, see (120) and (121).

(119) *Itin. Eger.* 47,1: *post autem uenerint dies paschae, per illos octo dies, … itur cum ymnis ad anastase*
‘but when the days of Easter have come, during those eight days they go with hymns to the Anastasis’

(120) *Itin. Eger.* 24,9: *mox autem primus pullus cantauerit, statim descendet episcopus*
‘as soon as the first cock has crowed, the bishop immediately arrives’

(121) Amm. 14,10,16: *mox dicta finierat, multitudo … consensit*
‘as soon as he had finished his address, the crowd voiced its agreement’

4. The development with the greatest consequence for the Late Latin and eventually the Romance system of subordination is the development of *quod* into a universal subordinator (Hofmann & Szantyr 1965: 579, Herman 1963: 74–98). It was triggered by the shift of the technique of subordination in

98. See Cristofaro (2003: 7–9), who in agreement with Haiman (1985) here speaks of “syntagmatic” economy. It is a characteristic of colloquial speech, see Norberg (1943: 243).

complement clauses from the *Accusativus cum Infinitivo* to the subordinate clause with *quod* and *quia*. In the process the Old Latin function of *quod* was revived; in Old Latin it was primarily still a semantically empty subordinator, as in correlative explicative clauses of the type *quid hoc est, quod concrepuit* (Plaut. *Most.* 1062), but it was not a causal subordinator (Hofmann & Szantyr 1965: 574).

Two syntactic patterns are important for the development of *quod* as a "temporal" subordinator. One is the type introduced in (50) in Section 3.2.1.1, the nucleus-less relative *quod* that competes with the "fusional type" represented by *cum*. This type, still rare in Classical Latin, expands in Late Latin at the expense of *cum*; an example is (122).[99] The other is the combination of a temporal adverb with *quod* to indicate the semantic functions TAQUO and IMANTE. It is only sporadically attested in Old and Classical Latin (see (123) and (124)), but in the course of development *quod* displaces the regular temporal subordinators, such as *ut* in (125).

(122) *Itin. Eger.* 2: *uallis … in quo filii Israhel commorati sunt his diebus, quod sanctus Moyses ascendit in montem Domini*
'the valley in which the children of Israel waited during those days when saintly Moses scaled the mountain of God'

(123) Ter. *Haut.* 53–54: *quamquam haec inter nos nuper notitia admodumst, / inde adeo quod agrum in proxumo hic mercatus es …*
'although our acquaintanceship is young, starting when you bought the nearby field …'

(124) Cic. *ad Q. fr.* 1,2,12: *litteras … de pactione statim quod audieram, iracundius scripseram*
'I had written a letter in great anger, as soon as I had heard about the arrangement'

(125) Verg. *Aen.* 6,385–387: *nauita quos iam inde ut Stygia prospexit ab unda / … / sic prior adgreditur dictis*
'as soon as the boatman caught sight of them from the river Styx, he approached and spoke first'

99. See Norberg (1943: 232–242); Hofmann & Szantyr (1965: 580); Herman (1963: 94). See also the entries for *diu est, cum / ut / quod* in *ThLL*, 1559,28–40.

The extension of this pattern was furthered by the increasing ellipsis of the demonstrative in (nontemporal) prepositional expressions like *prae quod* < *prae eo quod* (Plaut. *Stich.* 362, see Hofmann & Szantyr 1965: 583). The resulting combinations of a semantically empty subordinator and an adverb that specifies the semantic relation to the rest of the clause (e.g. *secundum quod*, *propter quod*, *pro quod*, etc., see Herman 1963: 74–98) represent the model for the further development of adverbial subordination. In the field of the Latin temporal subordinators, the phrasal type *ante/post quod* emerges from this basis, with *quod* replacing the fading *quam* (W. Stempel 1964: 414). After a few forerunners in the 3rd/4th centuries like (126), these new phrasal subordinators became established beginning in the 6th century ((127)/(128), see Norberg 1943: 239). Example (127), where the temporal adverb once again emerges in the main clause, shows that *ante quod* is conceptualized as a unity (on the same phenomenon with *postquam* see above on (66)).

(126) Apic. 4,2,4: *postea quod coctum fuerit, piper asparges*
'after it has cooked, you will sprinkle it with pepper'

(127) *Lex Alam.* 50,1: *si ante mortua fuerit, ante quod ille maritus eam quaesierit, cum cccc solidis componat*
'if she (the abductee) dies before the husband has demanded her back, then he (the abductor) shall render an expiation of 400 solidi'

(128) Fredeg. *chron.* 4,16: *quarto anno post quod Childebertus regnum Guntrami acceperat, defunctus est*
'in the fourth year after Childebertus assumed the lordship of Guntram, he died'

The foundations for the structural model of the Romance subordinators "modifier + subordinator" have thus been laid (Schlieben-Lange 1992: 437–438). The only change that follows is the replacement of *quod* by *que* between the 6th and 8th centuries,[100] see (129).[101] This "relatif indéclinable à valeur universelle" expands throughout the Western Romance area between the 6th

100. It appears in the spellings *que*, *quae*, and *quem*, see Herman (1963: 123), who also discusses the etymology in detail and argues for the theory, going back to Jeanjaquet, of the fusion of *quem* and *quae*.

101. *Formulae Andecavenses*, ed. K. Zeumer, MGH leg. sect. V.

and 9th centuries and is the last subordinator produced by Latin (Herman 1963: 129).

(129) *Formul. Andecav.* 24: *illi interpellabat aliquo homine, quasi … ipsa pecora illi excorticassit posteaque mortas fuerunt*
'somebody accused somebody of skinning the cattle after they had died'

4. Time location

4.1. Simultaneity overlap, anteriority, immediate anteriority

– simultaneity overlap (SIOVER): '*p* overlaps with *q*
– anteriority (ANTE): '*p* simply preceeds *q* in time
– immediate anteriority (IMANTE): '*p* immediately proceeds *q*'
(Kortmann 1997: 84f.)

4.1.1. Semantics

SIOVER and ANTE are the least specific semantic functions. For SIOVER, "the necessary and sufficient condition … is that the located situation and the reference time should overlap, i.e. be (at least partially) simultaneous" (Haspelmath 1997: 30). This makes possible three constellations: inclusion of the main clause within the temporal clause; vice versa; and partial overlap between them. This includes, as has already been said, Kortmann's semantic function "simultaneous duration." For the semantic function ANTE it is also the case that it does nothing more than locate the main clause situation after that of the temporal clause. IMANTE, simply, differs from ANTE in having the parameter proximative specified. In Kortmann's semantic map, this semantic function comes between SIOVER and ANTE, because it implies direct contact of the bounds of the two situations and thus, as it were, straddles the boundary between simultaneity and anteriority. In Latin, this affinity is illustrated by the development of *simul ac* into a subordinator for IMANTE as described in Section 3.2.2.

The semantic functions SIOVER and ANTE belong close together, which is manifested in Latin in the large stock of common means of expression (Section 4.1.2). This conforms to the framework of the European languages: Kortmann's data (1997: 181) display an affinity SIOVER : ANTE of 42.9 % and, the other way around, 68.2 % (that is, out of the total of all subordinators which express SIOVER, 42.9 % also have an anteriority reading, and 68.2 % of the subordinators which express ANTE also have a SIOVER reading).

The same goes for the preferred extension into the CCC network (see the statistics in Kortmann 1997: 181), where the first network-external extension of the two semantic functions in each case is CAUSE. The affinity between ANTE and CAUSE is moreover somewhat more strongly pronounced than that between SIOVER and CAUSE, doubtless because of the principle "post hoc ergo propter hoc" (see Section 1.2). In Latin, this extension already had its own expression format in Old Latin in the *cum causale* (see Section 3.3.2 no. 2); the extension with other subordinators than *cum* is exemplified in (130)–(133).[102]

(130) Plaut. *Capt.* 487: *abeo ab illis, postquam uideo me sic ludificarier*
'I avoided them after I saw that I was being so ridiculed'

(131) Plaut. *Amph.* 390: *non loquar nisi pace facta, quando pugnis plus uales*
'I will not speak until peace has been made, because you are stronger by far with fists'

(132) Plaut. *Aul.* 1119–1120: *uerum ubi is non uenit nec uocat, / uenio huc ultro, ut sciam, quid rei sit*
'because he does not come, nor call on me, I come here to find out what the trouble is'

(133) Plaut. *Stich.* 1149–1150: *quid ego ineptus, dum sermonem uereor interrumpere, / solus sto?*
'why am I awkwardly standing here all by myself, just because I fear to interrupt the conversation?'

102. Details in Hofmann & Szantyr (1965: 599, 607–608, 614, and 652) for *postquam*, *quando*, *dum*, and *ubi* respectively.

4.1.2. Expression formats

The close connection between the semantic functions SIOVER and ANTE is manifested in Latin (a) in the subordinators: 5 of the 6 subordinators with the basic meaning SIOVER, namely the one-word ones *cum*, *ubi*, *ut*, *quando*, and (only in Old Latin) *quoniam*, also have the function ANTE; whereas only two subordinators, *postquam* and *simulac*, have a special sequential meaning; (b) in the use of tense/aspect, since the semantic function ANTE presumes perfective aspect and the semantic function SIOVER at least allows it, see (134) with the semantic function ANTE and (135) with the semantic function SIOVER.

(134) Plaut. *Aul.* 15–17: *ubi is obiit mortem qui mihi id aurum credidit, / coepi obseruare, ecqui maiorem filius / mihi honorem haberet quam eius habuisset pater*
'when this man, who entrusted his gold to me, met his death, I became watchful of whether his son held greater respect for me than his father had held for me'

(135) Plaut. *Poen.* 904: *is in diuitias homo adoptauit hunc, quom diem obiit suom*
'this man, when his day was up, adopted him and bequeathed to him all of his riches'

With polysemous subordinators with indicative, there thus arises with respect to their function of time location the asymmetry discussed in Section 1.3.3 above between imperfective and perfective aspect: imperfective aspect implies the semantic function SIOVER; perfective aspect is compatible with SIOVER and ANTE, since it implies no temporal relation but merely expresses a past perfective situation (Oldsjö 2001: 339–344). Here other semantic and pragmatic parameters are needed to clarify which of the two semantic functions is underlying. In Givón's (2001: 330) terms, Latin here makes use of a "demarked coding strategy."[103] Perfective aspect is thus a necessary but not a sufficient condition for the assignment of the semantic function ANTE

103. This "succeeds when the semantic specifity of the temporal relation can be inferred from other features of the two clauses".

to the temporal clause, and ANTE is a conversational implicature rather than a secondary meaning of the subordinators in question (on this distinction see Kortmann 1997: 90–94).

4.1.2.1. SIOVER. The semantic function SIOVER is determined by the following two parameters.

1. In the field of the polysemous subordinators *ubi*, *ut*, *quando* (Old Latin also *quoniam*), the imperfective aspect plays a comparatively limited role; this can be seen with no more than a glance at the relation between imperfect and perfect (i.e., leaving out the historical present) in the corpus (Table 6).

Table 6. Imperfect and Perfect in Polysemous Subordinators

	Old Latin		Classical Latin		Augustan Latin		Imperial Latin.	
	Impf.	Perf.	Impf.	Perf.	Impf.	Perf.	Impf.	Perf.
cum	16	41	20	155	31	256	11	440
ubi	1	37	7	187	2	94	11	139
ut	1	13	9	14	4	108	5	146
quando	0	10	0	5	0	1	5	1

Outside the imperfect, the most important parameter is the combination of *Aktionsarten*, namely the presence of an atelic situation (see Boogaart 2004). In (136) the temporal clause is ingressive, in (137) the main clause is stative: the atelic situation in any case includes the telic. If there is no atelic situation, a SIOVER-interpretation relies on the pragmatic knowledge of the hearer. Examples are the *cum coincidens* in (138), which carries out an equation operation "*deferre ad senem = occidere Troilum*" (see Section 1.2), which naturally implies simultaneity, and (139), where the hearer's knowledge of the world enforces the interpretation that the telic main clause situation is included in the telic temporal clause situation.

(136) Plaut. *Amph.* 1061: *nam ubi parturit, deos sibi inuocat*
'for, when her labor pains started, she called on the gods for help'

(137) Plaut. *Asin.* 582: *nimis aegre risum continui ubi hospitem inclamauit*
'with the greatest difficulty did I withhold my laughter, when he rebuked the stranger'

(138) Plaut. *Bacch.* 960: *ubi tabellas ad senem detuli ibi occidi Troilum*
'when I delivered the letter to the old man, I killed Troilus'

(139) Plaut. *Aul.* 9–11: *quoniam moritur (ita auido ingenio fuit) / ... / inopem ... optauit potius eum relinquere*
'when he died (so greedy was he), he chose rather to leave his son indigent'

2. In addition, there are three monosemous means of expression for SIOVER.

(a) A *convention*, already in place in Old Latin, according to which the genuine temporal subordinator *cum* remains limited, even in the perfect indicative, to its meaning 'at the time when' and hence to simultaneity, so long as the semantic function IMANTE is not indicated with a temporal adverb (Kühner & Stegmann 1914, 2: 336–337), contrary to which *ubi* and *ut*, based on metaphorical extensions, do not undergo this limitation and also introduce ANTE clauses. In the corpus, all Old Latin *cum*-clauses with perfect indicative and historical present have the function SIOVER; according to Kühner & Stegmann (1914, 2: 336) this holds also for Classical Latin (where the ANTE function has been taken over by the *cum historicum* anyhow), compare for example the simultaneous *cum*-clause in (140) with the anterior *ubi*-clause in (141). Correspondingly, *cum* appears in Table 1 left of IMANTE only in classical times, reflecting the development of the *cum historicum*.

(b) Since Classical Latin, by the *cum historicum* in the imperfect, which develops into the subordinator with by far the highest frequency (see Table 9 below).

(c) by *dum* + present indicative as special expression format for the prototypical case among SIOVER relationships, namely the inclusion of a telic (momentaneous or dynamic-terminative) main clause in the atelic temporal clause (Haspelmath 1997: 30; cf. the characteristic combination with "for-x-time" adverbials like *paucos dies* in (143); examples are (142)–(145)).

(140) Plin. *epist.* 3,10,1: *composuisse me quaedam de filio uestro non dixi uobis, cum proxime apud uos fui*
'I did not tell you, when I was with you recently, that I wrote anything about your son'

(141) Tac. *ann.* 13,44,2: *sed ubi mulier uacua fuit, nectere moras, aduersam patris uoluntatem causari*
'but as soon as she was free, she devised delays and pretended that her father's wishes were against it'

(142) Plaut. *Stich.* 763: *interim, / meus oculus, da mihi sauium, dum illic bibit*
'in the meantime, darling, give me a kiss while he is drinking'

(143) Caes. *Gall.* 1,39,1: *dum paucos dies ad Vesontionem moratur, tantus subito timor omnem exercitum occupauit, ut . . .*
'while he was lingering at Vesontio for a few days, such great fear suddenly seized the whole army that . . . '

(144) Plaut. *Merc.* 193: *dum haec aguntur, lembo aduehitur tuos pater pauxillulo*
'while this was being done, your father was brought in a tiny little boat'

(145) Sall. *Iug.* 58,1: *dum apud Zamam sic certatur Iugurtha ex improuiso castra hostium cum magna manu inuadit*
'while he fought thus at Zama, Iugurtha all of a sudden assaulted the enemy camp with a great force'

The stereotypical present of the clauses with *dum* 'while' is a historical relic (see Section 3.2.1.2). Originally it includes the *origo*, the "time of present experience" in Klein's (2003) sense (Section 1.1), in which the two bounds of the situation remain out of consideration.[104] In the course of the differentiation of the various semantic functions of *dum*, it is grammaticalized for the variant of the inclusion of the main clause in an atelic, "unbounded" situation (while in the SICOEX and TAQUEM functions other tenses can be used). On the other hand, the original limitation to postposement is dropped, and clauses with *dum* 'while', in agreement with the function of the inclusion of

104. On the use of the present as the tense of "anterior continuing" see Haverling (this work, vol. 2, Section 3.1); Hofmann & Szantyr (1965: 613), in agreement with Brunner (1936: 66), speak of the "present of continuation"; it is thus not a matter of a historical present (see Bennett 1910: 96 and Kühner & Stegmann 1914, 2: 374).

the main clause, preferably are preposed before the main clause. In this position they also then take on expositive (143) and connective functions (even in Old Latin, see (144), and Classical, e.g. (145)).[105] That means that ever since Classical Latin, *dum* 'while' and the *cum historicum* have been approaching each other in both their semantic and their discourse functions, which explains the post-classical language increasing takeover of the grammatical properties (*consecutio temporum*) of the statistically dominant *cum historicum* by *dum* (see Section 3.4 no. 2).

4.1.2.2. ANTE. The semantic function ANTE has two monosemous means of expression: since Old Latin, *postquam* + perfect; and since Classical Latin, the *cum historicum* + pluperfect. Alongside the aforementioned polysemous subordinators, *ubi*, *ut*, *quando* are available. Of these, in the classical period only *ubi* still plays an important role; most frequent, as in the semantic function SIOVER, is the *cum historicum* (see Table 10).

1. Among the polysemous subordinators, the most important parameter for an ANTE interpretation turns out to be the combination of *Aktionsarten*, namely the sequence of two telic situations, typically with iconic preposing of the temporal clause as in (146)–(148); the possible inference of a causal relation, which indeed is often bound up with a temporal sequence, as in (149),[106] can play a supplementary role. As with polysemous SIOVER subordinators, though, here too the temporal interpretation often rests either on contextual signals or on the hearer's pragmatic knowledge. A vivid example is (150): all three *ubi* clauses have telic *Aktionsart* and perfective aspect. In the first one, the ANTE interpretation is suggested by the iconic sequence of two telic situations; in the second one, IMANTE is forced by the context signal *continuo*; and in the third, which appears after an atelic main clause, the time relation remains indefinite ("when"/"after").

(146) Plaut. *Aul.* 708: *ubi ille abiit, ego me deorsum duco de arbore*
'when he departed, I brought myself down from the tree'

105. Details in Mellet's (1996: 314.316) statistics.
106. On the telic/ingressive interpretation of *uidit* see below no. 2.

(147) Plaut. *Cas.* 881: *ubi intro hanc nouam nuptam deduxi, recta uia in conclaue abduxi*
'when I led my new bride home, I immediately took her into the bedroom'

(148) Plaut. *Mil.* 123: *ubi … aspexit me, … mihi signum dedit*
'when he caught sight of me, he signaled to me'

(149) Caes. *civ.* 3,94,5: *sed Pompeius ut equitatum suum pulsum uidit …, ⟨sibi⟩ aliisque diffisus acie excessit*
'but when Pompey saw his cavalry beaten back, he lost faith in them and the others and abandoned the line of battle'

(150) Ter. *Haut.* 275–281: *ubi uentum ad aedis est, Dromo pultat fores; / anu' quaedam prodit; haec ubi aperuit ostium, / continuo hic se coniecit intro, ego consequor; / … / hic sciri potuit … / quo studio uitam suam … exegerit, / ubi de inprouisost interuentum mulieri*
'when we went home, Dromo knocked on the door; an old woman appeared; and when she opened the door, on the spot he threw himself inside, and I followed; here, when we caught her unawares, one could see how she spent her time'

2. A special case of ANTE is the ingressive interpretation of stative situations with *ubi*, *ut*, etc., + perfect or historical present like (151) (see Oldsjö 2001: 244–252 with further examples):

(151) Caes. *civ.* 1,23,1: *Caesar, ubi luxit, omnes senatores … ad se produci iubet*
'as soon as day broke, Caesar ordered that all senators be brought before him'

Stative situations imply no right bound but can have the focus on the left bound, the beginning of the state (see Haverling, this work, vol. 2, Section 2.1.7; Mellet 2005); this has nothing to do with either the tense or the subordinator but is the outcome of contextual inference. The focus often arises, as in (151), from the fact that a new narrative phase is opened in a narrative text (Oldsjö 2001: 246). A variant of this is the change of perspective as in (152), where the stative verbs designate the respective onset of the cognition process in the two persons involved in the situation.

(152) Plaut. *Bacch.* 290–293: *quoniam sentio / quae res gereretur, nauem extemplo statuimus. / quoniam uident nos stare, occeperunt ratem / tardare*
'when I realized what was happening, we stopped the ship. When they saw that we were standing still, they started to slow the vessel'

4.1.2.3. IMANTE. The semantic function IMANTE, insofar as it is not indicated by the monosemous subordinator *simul atque (simulac, simul)*,[107] is expressed lexically, namely by a temporal adverb (and in Old Latin still by "parahypotaxis" as well, see (9) in Section 1.3 above). The use of the IMANTE adverbs has not yet been standardized in Old Latin. A colorful palette of temporal adverbs was available (*primum*, *principio*, *extemplo*, *ilico*, *continuo*, *exinde*, etc., see the comic accumulation in (153)), and these can be in the main clause ((153), (154)) or the temporal clause (155). Placing the temporal adverb in the main clause must have been the original strategy; placement in the subordinate clause developed by way of juxtaposition of adverb and subordinator as in (156), followed by reanalysis as in (157). The change in position of the subordinator and adverb then follows from the principle that the subordinator serves simultaneously as a clause boundary marker.

(153) Plaut. *Curc.* 363: *ostium ubi conspexi, exinde me ilico protinam dedi*
'as soon as I saw the door, then I immediately made off'

(154) Plaut. *Bacch.* 768–769: *adambulabo ad ostium, ut, quando exeat, / extemplo aduenienti ei tabellas dem in manum*
'I will approach the door, so that, as soon as he exits, I can immediately put the letter in his hand'

(155) Plaut. *Most.* 101–103: *aedes quom extemplo sunt paratae, expolitae, / factae probe examussim, / laudant fabrum atque aedes probant*
'as soon as the house is ready, polished, and properly constructed, they praise the builder and the building'

107. On their (only marginally attested) ingressive variants see (60) in Section 3.2.2.1 above.

(156) Plaut. *Curc.* 79–81: *uinosissima est; / eaque extemplo ubi ⟨ego⟩ uino has conspersi fores, / de odore adesse me scit, aperit ilico*
'she is exceedingly fond of wine, and as soon as I have sprinkled the door with it, she knows from the aroma that I am here and immediately opens the door'

(157) Plaut. *Bacch.* 976–977: *senem / uendam ego, uenalem quem habeo, extemplo ubi oppidum expugnauero*
'as soon as I have captured the town, I will sell the old man whom I keep for sale'

In Classical Latin, this freedom underwent a standardization process. *Primum* asserted itself, which in Old Latin still had its normal meaning 'for the first time' in combination with temporal subordinators[108] (see (158)). It is now placed obligatorily in the temporal clause, and in combination with *cum, ut,* and *ubi* it is grammaticalized into a phrasal subordinator (159). It is distinguished from later phrasal subordinators like *ex quo* in that the combination is not obligatory, but the subordinator alone can express the semantic function. This is thus an example of the process Hopper and Traugott (1994: 113–115) call "specialization," in which several competing means of expression are reduced to one (or a few), which in turn undergoes a desemanticization process.[109]

(158) Plaut. *Asin.* 889–890: *pater, / iube dari uinum; iam dudum factum est cum primum bibi*
'father, summon the wine; a little while has already passed since I first drank'

(159) Caes. *Gall.* 3,9,2: *ipse, cum primum per anni tempus potuit, ad exercitum contendit*
'as soon as the time of year was right, he returned to the army'

The only remaining contestant that follows the old pattern, brings it up to a nonnegligible frequency, and remains productive from the classical period

108. See Kühner & Stegmann (1914, 2: 352f.), Hofmann & Szantyr (1965: 626) against Bennett (1910: 83).
109. Hopper and Traugott illustrate specialization with the well-known example of the specialization of the intensifiers in French negation.

through Late Latin is *statim ut* (Hofmann & Szantyr 1965: 637).[110] The Old Latin model took on new life in post-Classical and Late Latin through similar formations like *protinus ut* and *confestim ut* (Hofmann & Szantyr 1965: 637).

4.1.2.4. Temporal distance. Temporal distance rarely has a special expression format crosslinguistically (see Haspelmath 1997: 36) and therefore no entry in Kortmann's semantic map. In Classical Latin there is one, the combination of *post quam* with the relative rather than the usual absolute tense; this is an iconic means of placing the focus on the distance between the reference situation and the located situation. The actual distance measure takes place by modification of the "parameter" of the comparative construction by a time expression. Since the "parameter" stands alone in its scope, here univerbation as a rule (Kühner & Stegmann 1914, 2: 355) stops and the old comparative construction type is retained (see Section 3.2.2); individual glimmers of univerbation, though, are already found in Old Latin, see (162).

(160) = (64) Cic. *div.* 2,46: *signum Iouis biennio post, quam erat locatum, in Capitolio conlocabatur*
'the statue of Jupiter was erected in the Capitoline two years after it was commissioned'

(161) Cic. *epist.* 16,21,1: *(tabellarii) uenerunt post diem quadragensimum et sextum quam a uobis discesserant*
'the envoys arrived forty-six days after they left you'

(162) Plaut. *Bacch.* 170–171: *erilis patria, salue, quam ego biennio, / postquam hinc in Ephesum abii, conspicio lubens*
'salutations, O Country of my master. I look upon you gladly two years after having left for Ephesus'

110. The PHI Corpus has 37 examples of *statim ut*, versus *cum primum* 220, *ut primum* 179, and *ubi primum* 112.

4.2. Discourse functions

Since Latin is a language with, in principle, free positioning of the adverbial clause,[111] SIOVER and ANTE clauses can be used for the pragmatic purpose mentioned in Section 1.2 above of providing expositive or explicative background information. In Old Latin, all SIOVER and ANTE subordinators are so used; in Classical Latin the *cum historicum* appears in this function to a great extent (Section 4.2.1). Unlike in genuine time location function, which is accomplished by anaphoric reference to the prior knowledge of the hearer, temporal clauses in expository function do not undergo this limitation and are also not semantically integrated into the main clause, since expository function means the establishment of a speech universe in which the main clause is embedded (Lehmann 1984: 351), which excludes integration into the main clause.[112]

The exposition of a situation can require more information than the normal time location function, and therefore expository temporal clauses tend to be longer than "normal" ones. Typically, it becomes a matter of the binary division of information (illustrated by (4) in Section 1.2) into foreground and background information, in which several chunks of background information can be bundled into a complex, for which there is no need of an internal temporal structure. Since such expository clauses need not rely on prior knowledge of the hearer, they can contain new information alongside the old. As a result they can assume various positions on the continuum of information status (terminology from Buijs 2005: 17–19): entirely new as in (163), contextually prepared as in (164),[113] and finally entirely given as in (165) and (166), with the frequent connective use of the temporal clause. Postposed explicative temporal clauses, on the other hand, have a narrower scope, which

111. Naturally with the exception of consecutive clauses. A typological survey of adverbial clause position is Hiegl (1998).
112. The ablative absolute likewise can have expository function, so temporal clauses are often combined with ablative absolutes, see Luraghi (2001). The distribution of the corresponding participial constructions and temporal clauses in Greek is investigated by Buijs (2005).
113. Here the preparations for battle are recapitulated that were described in previous chapters.

can be limited to the predicate, as in (167), where the *cum*-clause explains the content of *sermonem produximus*.[114]

(163) Caes. *Gall.* 3,25,1: *ibi cum alii fossas complerent alii … defensores uallo munitionibusque depellerent auxiliaresque, quibus ad pugnam non multum Crassus confidebat, … speciem atque opinionem pugnantium praeberent, cum item ab hostibus constanter ac non timide pugnaretur …, equites … Crasso renuntiauerunt non eadem esse diligentia ab decumana porta castra munita facilemque aditum habere*
'while some there filled the trenches and while others drove the defenders from the walls and fortifications; while the auxiliaries, in whom Crassus had not a great amount of faith, gave at least the appearance and impression of fighting; and while, moreover, the enemy fought resolutely and without fear – the cavalry reported to Crassus that the camp was not defended with the same care at the *decumana* gate and that the enemy had an easy approach'

(164) Caes. *Gall.* 1,22,1: *prima luce cum summus mons teneretur, ipse ab hostium castris non longius mille et quingentis passibus abesset neque … aut ipsius aduentus aut Labieni cognitus esset, Considius equo admisso ad eum accurrit*
'at first light, when Labienus held the mountain summit, when Caesar himself was not farther than one and a half miles from the enemy camp, and when the arrival of neither Caesar nor Labienus was detected, Considius approached him on horseback at full gallop'

114. See Givón (2001: 342–343), who describes the difference between postposing and preposing as that between *local (semantic)* vs. *global (pragmatic) grounding*.

(165) Caes. *Gall.* 4,25,1: *quod ubi Caesar animaduertit, naues longas, … paulum remoueri ab onerariis nauibus … iussit*
'and when Caesar noticed this, he commanded that the warships be withdrawn a bit from the transport vessels'

(166) Caes. *Gall.* 1,42,6: *quod cum fieret, non inridicule quidam ex militibus decimae legionis dixit plus quam pollicitus esset Caesarem ei facere*
'and when that happened, a certain soldier from the tenth legion said, not without humor, that that Caesar did more for him than he had promised'

(167) Cic. *rep.* 6,10: *sermonem in multam noctem produximus, cum senex nihil nisi de Africano loqueretur*
'far into the night we stretched out the conversation, with the old man speaking about nothing except Africanus'

While the *cum historicum* has played an important role in the expression of the just-named discourse functions from the time of Classical Latin (Section 4.2.1), conversely the indicative *cum* in post-Classical Latin develops with the *cum inversum* a function of conveying central information (Section 4.2.2).

4.2.1. The cum historicum

In Section 3.3.2 it was said that the *cum historicum* has syntactic adjunct status and the associated pragmatic function of backgrounding. In Classical Latin the *cum*-clauses remaining in the indicative with the exception of the *cum inversum* (see Section 4.2.2) are consequently limited to the time location function; the latter are thus in Bickel's (1991: 89–96) terms a means of clause construction, whereas the former can constitute a discourse unit with the main clause and thus be a means of text structure. This view agrees with work by such scholars as Lavency (1975–1976, 1985), Maurel (1995), Calboli (1998), and Luraghi (2001). Competing with it is an older view that describes the difference between indicative *cum relativum* and subjunctive *cum historicum*s in semantic terms as "temporal : temporal-causal / internal conherence" (Ger. *innerer Zusammenhang*). Since the early nineteenth century it has been common currency in school textbooks, was popularized by Kühner & Stegmann

1911, 2: 343) and Wackernagel (1926, 1: 244: "causal aftertaste"), and has recently been emphatically revived by Müller-Wetzel (2001).[115] The venerability of this view may be illustrated by quoting Zumpt (1852: 409):

> *Quum* is properly a relative adverb of time .... If therefore nothing further is to be expressed, it is joined with the indicative. But *quum* is also employed to express the relation of cause and effect, and in this sense it governs the subjunctive. ... In a narrative, however, *quum temporale* is joint with the imperfect and pluperfect subjunctive, because in a continuous narrative, a preceding event is always conceived and represented as the cause of a subsequent one. ... The following passage of Cicero is particularly instructive:
>
> (168) Cic. *Planc.* 65: *at ego cum casu diebus eis ... decedens e prouincia Puteolos forte uenissem, cum plurimi et lautissimi in eis locis solent esse, concidi paene, iudices, cum ex me quidam quaesisset quo die Roma exissem et num quidnam esset noui*
> 'but when by chance I had reached Puteoli after departing the province, in the days when a greater number of the wealthiest men were accustomed to spending time there, I almost fell over, O Jury, when someone asked on what day I had left Rome and whether there was any news'
>
> In this passage *quum ... uenissem* is the historical protasis to *concidi*; but *quum ... solent* merely explains the time implied in *iis diebus*.

115. History of research from Hale through 1966 in Calboli (1966–1968); supplements in Lavency (1975–1976: 49–50) and Calboli (1998). On the basis of his "theory of extended obliqueness," Müller-Wetzel considers the subjunctive to be a signal for a logical relation with the main clause, which in the present case is specified by the meaning of *cum* as "logically prior to the main clause" and is disambiguated by the context as causal, concessive, or adversative (110–111). Of more recent works, the one that most distances itself from those two research traditions is Álvarez-Huerta (2001), with the thesis that the subjunctive is a signal of information that is old and therefore no longer in need of assertion. Álvarez-Huerta bases her theory on pairs of examples like (176)/(177) in Section 4.3, in which the same situation is expressed first in the indicative and then in the subjunctive (further data in Kühner & Stegmann 1914, 2: 345). This is refuted by Luraghi's article in the same volume (2001), which proves that the combination "presupposed + *new*" is characteristic of the *cum historicum*.

1. While nothing need be added to the foregoing example, there is a basic problem with this approach – that it deals only with the preposed *cum historicum* and explains it with the *post hoc ergo propter hoc* rule of thumb, which is not applicable to the postposed *cum historicum* as in (167). Stricter versions of this approach, like Müller-Wetzel's (2001), are forced to read a logical relation into every *cum historicum*, even when one clearly does not exist, as in commonplace examples like (169), or in explicative examples in which nothing like a "logical relation" can be construed, as in (167) and (170).[116]

(169) Caes. *Gall.* 3,2,1: *cum dies hibernorum complures transissent ..., subito per exploratores certior factus est ... omnes noctu discessisse*
'when a number of wintry days had elapsed, he was unexpectedly made more certain, through his scouts, that all of them had left during the night'

(170) Cic. *orat.* 129: *nobis priuata in causa ... cum coepisset Curio pater respondere, subito assedit, cum sibi uenenis ereptam memoriam diceret*
'when, in a private suit, the father Curio began to answer me, he suddenly sat down, whereupon he said magic potions had snatched away the memory'

2. If the suggestion in Section 3.3.2 is correct, that the subjunctive in the *cum historicum* no longer has any semantic function but has been grammaticalized into the marker of adjunct status, the "internal cohesion" with the main clause consists of providing not a semantic relationship, but "merely" a discourse-pragmatic orientation of the *cum historicum* toward the main clause, in Kroon's (1995) term "subsidiary information" (see below). This function is based on the combination of adjunct function with relative tense: the former makes possible a nonrestrictive relation with respect to the main clause and variable status of information, including entirely new as described

116. Here Cicero had previously analyzed the effect of the rhetorical *Pathos* on the trial attorneys; the main clause in (170) describes its direct physical effect, the *cum*-clause explains how this effect was felt by the adversary (*cum diceret* $\sim$ *dicens*).

above ((163) in Section 4.2), whereas the time location function of the *cum relativum* is based on the property restrictive-anaphoric; the relative tense, which, as has been said in Section 1.3.2, is a mechanism for reference tracking, anchors the *cum historicum* temporally in the main clause and thus signals its discourse-pragmatic dependency on the latter.

The expository and explicative function of the *cum historicum* in Caesar is analyzed in depth by Luraghi (2001). Especially noteworthy among her findings are (1) that expository clauses are far more common than explicative clauses (the ratio is 3.5 : 1 for simultaneous and 11 : 1 for anterior *cum historicum*s); the high value for the preposed anteriors illustrates the (iconic) functional motivation for preposing; and (2) that the "text structuring" function of the *cum historicum* becomes especially clear in that it can serve for the exposition of entire narrative sequences. In the extreme case, clauses with *cum historicum* can, varying from the above, possess their own temporal internal structure (as in (4), repeated here), so that they are approaching the narrative function of the main clause. Correspondingly, they are easily transformed into independent clauses (Luraghi 2001: 421–422).

(171) = (4) Caes. *Gall.* 1,27,2: *qui (= legati Heluetiorum) cum eum in itinere conuenissent seque ad pedes proiecissent suppliciterque locuti flentes pacem petissent atque eos in eo loco, quo tum essent, suum aduentum exspectare iussisset, paruerunt*
'after the envoys of the Helvetii had met him on the way, had thrown themselves at his feet, had beseechingly and tearfully pleaded for peace, and had been told by him to await his arrival at their current whereabouts, they obeyed'

3. The distinct functions of the *cum relativum* and the *cum historicum* in Classical Latin, time location versus discourse organization, can be described in terms that in pragmatics are used for the mechanisms of structuring narrative texts. The distinction corresponds to the distinction made by Kroon (1995, 1998) between "supportive" and "subsidiary" information: the *cum historicum* offers "subsidiary material within the narrative proper," namely, "events which do not further the narrative in a chronological, sequential sense, but which serve as a preparation or support with regard to one or more main-line events." (Kroon 1998) The *cum historicum* thus belongs to the

"rhetorical structure" of a text and is a means for text structuring. The *cum relativum*, on the other hand, offers "supportive" information (Kroon 1998: 43), which is not properly a component of the narrative, but part of the tense/aspect information of the main clause, information that typically is oriented toward the speaker's perspective; it belongs to the "thematic structure." The *cum historicum* is thus the grammaticalization of the discourse strategy "subsidiary information" and therefore belongs in the realm of similar grammaticalization phenomena, as have been investigated by Matthiessen and Thompson (1988) (background, circumstance, concession). The grammaticalization consists of the fact that a quantity of text that is oriented toward an informative nucleus and is communicatively subordinated to it enters into a grammatical relationship with it, instead of, alternatively, being presented grammatically independent of it. The *cum relativum*, on the contrary, belongs to (in Matthiessen and Thompson's sense) the embedded relations; on the clause connection scale, it is close to the point where "cross event coherence" changes to "cross event integration."[117]

4.2.2. Cum relativum *and* cum inversum

The rise of the *cum historicum* has two consequences for the indicative *cum*. The first appears already in the classical period, namely in its decline in the tenses to which the *cum historicum* appears as a rival, imperfect or perfect (see Table 7; for the imperfect and pluperfect subjunctive as rivals to the perfect indicative see Section 1.3.3). Given the previous discussion of the opposition background function versus time location function between *cum historicum* and *cum relativum*, the question arises how the disappearance of the temporal functions of the *cum relativum* is compensated for (see Section 4.3). The second consequence for the *cum* + indicative shows up post-classically, namely the shift of its center of gravity in narrative texts to the expression of a discourse function of its own, what is called the *cum inversum*.

1. The retreat of the preterital *cum* + indicative reaches extreme values in individual authors like Caesar and Livy, but is impressive in all the others as well. Table 7 illustrates this with the values that the corpus yields for the preterite (including historical present) for the five historians included in the

117. Terms after Givón (2001, 2: 327–328).

Table 7. Ratio of preterital *cum* + indicative vs. *cum* + subjunctive in the corpus

	INDICATIVE			SUBJUNCTIVE		RATIO
	Imperfect	Perfect/ historical Present	Pluperfect	Imperfect	Pluperfect	
Caesar	1	14	6	192	126	∼1 : 15.0
Sallust	2	5	2	29	6	∼1 : 3.8
Livy	1	8	0	59	46	∼1 : 11.7
Curtius	4	84	4	168	81	∼1 : 2.7
Tacitus	4	41	0	193	46	∼1 : 5.3

corpus, thus narrative texts in which naturally a large number of temporal clauses are expected.[118]

2. The process of transfer to other functions than time location becomes clear when we compare the values for the four most common uses of indicative *cum* in Classical and post-Classical Latin, namely, (1) *cum relativum*, (2) *cum iterativum*, (3) *cum coincidens*, and (4) *cum inversum*, with those for Plautus (Table 8).

Table 8. Semantic functions of indicative *cum*

	relativum		*iterativum*		*coincidens*		*inversum*		Total
	n	%	n	%	n	%	n	%	n
Plautus	49	94	3	6					52
Caesar	5	24	12	57	1	5	3	14	21
Sallust	5	24	3	14	8	38	5	24	21
Livy	3	30					7	70	10
Curtius	7	6.5	29	27	2	2	71	65	109
Tacitus	16	24.5	8	12	1	1.5	40	61.5	65

118. The small numbers for Livy are explained by the fact that the corpus includes only five books of Livy. Kühner & Stegmann (1914, 2: 343) give for Livy a ratio of *cum* + subjunctive : *cum* + indicative of 2864 : 162, for Velleius 167 : 9, where the latter includes 6 *cum inversum* and 2 iterative examples.

In Plautus, the indicative *cum* is 100 % temporal; in Caesar, about 80 % of all examples of indicative *cum* are used temporally.[119] From Livy on, the old temporal functions sink to less than 40 %. The indicative *cum* holds its ground in a few "relic" functions, namely when it occurs in a correlative diptych and when it constitutes the "incidence schema" as in (42) in Section 2 and (172), as well as to some extent in iterative function (see Section 5).

(172) Cic. *epist.* 8,13,2: *Hortensius, cum has litteras scripsi, animam agebat*
'Hortensius was dying when I wrote this letter'

3. These losses are compensated for by the development of the veritably explosive use of the – rhetorically motivated – *cum inversum*.[120]

(173) Liv. 29,7,8: *Hannibal iam subibat muros, cum repente in eum … erumpunt Romani*
'Hannibal was already nearing the walls when suddenly the Romans rushed out against him'

(174) Petron. 111,5: *una igitur in tota ciuitate fabula erat, … cum interim imperator prouinciae latrones iussit crucibus affigi*
'there was just one conversation in the entire city when, meanwhile, the local governor ordered that the robbers be crucified'

The "inversion" of the usual functions appears semantically in that the usual relation temporal clause = reference situation, main clause = located situation inverts (see Couper-Kuhlen 1989): a suitable substitution of an interrogative pronoun in (173) would be not *quando subibat Hannibal muros?*, but *quando Romani erumpunt?* This incongruence between syntactic structure and discourse function is manifested, according to M. Harris (1989: 344–345), in that the *cum inversum* in indirect speech is sometimes treated as a main clause (since Livy, see Hofmann & Szantyr 1965: 623), sometimes as a subordinate clause. The indicative *cum* thus develops, like the *cum historicum*, into an element of text structure: the *cum inversum* has discourse-continuation, thus foregrounding, function, often with the additional nuance

119. The high number of iterative examples is due to the descriptive book *Gall.* 6.
120. See Chausserie-Laprée (1969: 561–566), Mellet (1988: 13–16), Luraghi (1995).

of the surprising onset of the subordinate clause situation as a result of changing perspective (therefore called by Chausserie-Laprée 1969: 561 the "*cum* of rupture"), whereas the main clause has thematic, often resumptive function (see (173) and (174)).

The discourse-advancing function of the *cum inversum* appears in the grammatical properties of obligatory postposing, blockage of the diptych, and tendency toward limitation to the perfect.[121] In the extreme case, the *cum*-clause can even have an independent illocutive function, see (175). Functionally and also diachronically, the *cum inversum* approaches a "relative clause connection" (Ger. *relativer Anschluß*).[122] It turns out that the phenomenon known from many other languages that a subordinate clause can exhibit "main clause phenomena" (Couper-Kuhlen 1989) appears in Latin as well.

(175) Cic. *prov.* 5: *quae (= Macedonia) nunc … ita uexata est uix ut se possit diuturna pace recreare, cum interea quis uestrum hoc non audiuit, quis ignorat, Achaeos ingentem pecuniam pendere L. Pisoni quotannis?*
'Macedonia is now so maimed that it will scarcely be able to recover, even after a lengthy peace; meanwhile, who of you has not heard or is unaware that the Achaeans annually pay a massive sum to L. Piso?'

4.3. The *cum historicum* as "general subordinator"

The question posed above, as to how the disappearing SIOVER function of *cum* + indicative was compensated for in Classical Latin, can at first be answered negatively, to the effect that it is not by means of competing subordinators that can express the semantic function SIOVER. In this case a con-

121. In the corpus, three examples with imperfect are found in Tacitus, e.g. Tac. *ann.* 11,26,1: *iam Messalina … ad incognitas libidines profluebat, cum abrumpi dissimulationem etiam Silius … urgebat*.
122. Lavency (1975–1976: 383–386) notes cases where the *cum inversum* is combined with the infinitive, which is actually relative clause connection rather than subordination. For the historical development, see H. B. Rosén (2001).

Table 9. Percentage relation of Old Latin *cum* + perfect/historical present/imperfect indicative and Classical *cum* + imperfect subjunctive to the other subordinators with semantic function SIOVER

	cum	*ubi*	*ut*	*dum*	*quando*	*quoniam*
Old Latin %	48.72	26.62	3.96	8.78	9.91	1.98
Classical %	49.65	32.59	3.46	11.78	2.49	

siderable increase in *ubi*, *ut*, and *quando* in the perfect/historical present and imperfect and of *dum* in the present would have had to be observed. Table 9 shows that this is out of the question. The minor increases of *ubi* and *dum* simply compensate for the loss of *quando* and *quoniam*. On the other hand, the frequency of the classical *cum historicum* with imperfect corresponds quite nicely with that of Old Latin *cum* with perfect/historical present and imperfect (Table 9).

The conclusion is obvious that the *cum historicum* in the imperfect, alongside its discourse function of backgrounding, also continues the time location function of the Old Latin *cum relativum*.

1. This was made possible by the aforementioned variable information status of the *cum historicum*: alongside its capacity to designate completely new situations, it can also have the *cum relativum*-typical function of anaphorically pointing to a known situation. A familiar example is (176), which makes reference to the same fact as (177). Above and beyond this, the reference time of the *cum historicum* can also be anchored indirectly, by anaphoric reference to a text segment with unambiguous time reference; see the reference of (178) to the preceding passage (Caes. *Gall.*: 1,54,2–3), whose time reference is clear. Finally, the *cum historicum* can also, when it contains entirely new information, following the principle "limitation of the extension by enrichment of the intention," contain reference-explaining information, as in the calendar date in (179). The takeover of the SIOVER function is not limited, however, to the case of the inclusion of the superordinate clause in the temporal clause, but also begins to extend to the opposite case, the "incidence schema," which becomes possible on the basis of the "default aspect" (see Section 1.3.3), when the main clause has atelic *Aktionsart* and the *cum*-clause momentaneous *Aktionsart*, as in (180).

(176) Cic. *Tusc.* 2,53: *Marius cum secaretur, ut supra dixi, principio uetuit se alligari*
'when Marius was operated on, as I said above, he initially refused to be bound'

(177) Cic. *Tusc.* 2,35: *cum uarices secabantur C. Mario, dolebat; cum aestu magno ducebat agmen, laborabat*
'when G. Marius' varicose veins were operated on, he was wracked with pain; when he led the army in the midday heat, he suffered'

(178) Caes. *Gall.* 2,1,1: *cum esset Caesar in citeriore Gallia, ita uti supra demonstrauimus, crebri ad eum rumores adferebantur ... omnes Belgas ... contra populum Romanum coniurare*
'when Caesar was on this side of Gaul, as described above, rumors were frequently reported to him that all of the Belgae were banding together against the Roman people'

(179) Cael. *Cic. epist.* 8,4,4: *sed cum senatus habitus esset ad Apollinis a.d. XI kal. sext. ..., mentio facta est de legione ea quam expensam tulit C. Caesari Pompeius*
'but when the senate assembly was held on the 22nd of July in the temple of Apollo, there was talk of the legion which Pompey had lent to G. Caesar'

(180) Quint. *decl.* 299,5: *'dies' inquit 'noctesque miseranda patris umbra circumuolat, qualis erat cum mandatum daret'*
' "day and night," she says, "the lamentable ghost of my father hovered all around, just as he was when he used to give me an order" '

2. The *cum historicum* is further established as a means of expression for the semantic function ANTE, which was unknown to the Old Latin *cum* (Section 4.1.2.1). In Classical Latin, the frequency of *cum historicum* with pluperfect is already a little higher than that of anterior *ubi* (233 vs. 218 instances), and considerably higher than that of *postquam*. Table 10 illustrates this process of extension of the anterior *cum historicum* at the expense of the other ANTE subordinators.[123]

123. The raw numbers for Table 10: *ubi* 187 perfect, 31 historical present, 2 pluperfect subjunctive (the 13 examples of pluperfect indicative have CONTING semantic function); *postquam* 100 perfect, 23 historical present; *ut* 14 perfect, 1 historical present.

Table 10. Classical *cum* + pluperfect subjunctive compared with the other ANTE subordinators

cum + pluperfect	*ubi* (anterior)	*postquam*	*simulac*	*ut*	*quando*
37.76 %	35.33 %	20.09 %	4.37 %	2.43 %	0.48 %

3. Overall, then, the development of the *cum historicum* into a sort of "general subordinator" for discourse functions *and* for the time location functions SIOVER/ANTE can be observed. Not least, this also holds for its extension to the various text genres and style levels. Section 3.3.2 mentioned the old theory that the absence of the *cum historicum* in Plautus is to be explained from the fact that it was originally a feature of literary language. Even if this is correct – a process of differentiation like that between temporal and pragmatic functions of a temporal clause is in fact more important in literary language than in colloquial language – there was no longer anything "literary" about the *cum historicum* in classical and post-classical times, since it is found with equal regularity in literary and nonliterary texts, as for example in the speech of freedmen in Petronius ((181) and (182)).

(181) Petron. 45,7: *(Glyco) qui deprehensus est, cum dominam suam delectaretur*
'Glyco, who was caught seducing his master's wife'

(182) Petron. 63,4: *cum ergo illum mater misella plangeret . . . , subito strigae coeperunt*
'when his mother was sobbing wretchedly for him, the witches suddenly started up'

4. The extension of the *cum historicum* into the functional territory of the *cum relativum* led finally to the origin of a gray area between them, which developed in colloquial texts of the classical and post-classical periods. On the one hand the *cum relativum* in correlative diptychs occasionally takes the subjunctive, as early as in Cicero's letters (see (183)[124] and (184)), and then in

124. Aside from (183), the *cum relativum* and *cum historicum* in the Caelius letters (Cic. *epist.* 8) appear rather "bookishly" in the opposition time location (3× imperfect, 3× perfect, 1× pluperfect) : exposition/explanation (7× imperfect, 5× pluperfect).

Petronius (185).[125] In the opposite direction, retention of the old indicative is found in the expository function of the *cum*-clause, as in (186). In Late Latin authors who are less classicizing than "Egeria",[126] there develops from this a trend toward the undifferentiated use of *cum relativum* and *cum historicum*, as in Gregory of Tours; compare (187) from Bonnet (1890: 681).

(183) Cael. *Cic. epist.* 8,1,2: *praeterea Marcellus, quod adhuc nihil rettulit de successione prouinciarum Galliarum . . . , sane quam eos sermones expressit qui de eo tum fuerant cum Romae nos essemus*
'moreover, because Marcellus delayed making a proposal to the senate about the succession in the Gallic provinces, he of course lent credence to the rumors that were circulating about him when we were in Rome'

(184) Cic. *Att.* 5,11,7: *epistulae . . . tum . . . datae cum ego me non belle haberem*
'letters were sent up to the time when I started to feel unwell'

(185) Petron. 9,9: *ne tum quidem, cum fortiter faceres, cum pura muliere pugnasti*
'not even then, when you were stronger, did you fight a clean woman'

(186) Petron. 50,5: *cum Ilium captum est, Hannibal . . . omnes statuas aeneas et aureas et argenteas in unum rogum congessit et eas incendit*
'when Troy was taken, Hannibal heaped all the bronze, gold, and silver statues into a single pile and kindled them'

(187) Greg. Tur. *Franc.* 6,6: *quam cum benedixit atque crucem in fronte eius inposuisset, purgata discessit*
'after he blessed her and made the sign of the cross on her brow, she left saved'

125. See Petersmann (1977: 275–278); collections of classical examples may be found in Zumpt (1852: 410) and Handford (1947: 170).

126. Whose 6 indicative examples with *cum* are in the future or have the semantic function CONTING; the function of the *cum relativum* is largely taken over by *quando*, but the *cum historicum* is used as in Classical Latin (see Milani 1969: 418; see Section 3.4).

4.4. Posteriority

– ‘*p* simply follows *q* in time’ (Kortmann 1997: 85)

4.4.1. Semantics

1. POST is a complex relation, since the temporal information of posteriority with respect to the main clause implies the modal information of nonrealization at the reference time of the main clause. In the words of Thompson and Longacre, POST clauses are “conceptually negative from the point of the view of the main clause” (1985: 181–182).[127] Reflexes of it in the European languages are the presence of “polarity items” like *quisquam* or *any* in (188) or (189), the presence of “illogical” or “expletive” negations that can be found in POST clauses just as in the underlying comparative constructions, see (190) and (191); likewise in this context belongs the use of the infinitive instead of the indicative in Greek, see (192). POST is thus the only temporal relation that according to its basic meaning is not factually presupposed.

(188) Cic. *rep.* 2,6: *maritimus uero ille et naualis hostis ante adesse potest, quam quisquam uenturum esse suspicari queat* (∼ *nemo ante suspicare potest, quam adest*)
‘but a seafaring enemy can appear before one is able to detect his approach’

(189) *Before any shots were fired, a truce was declared*

(190) *Du kriegst kein Taschengeld, bevor du nicht den Rasen gemäht hast* (from Kortmann 1997: 184)

(191) *Il est venu plus tard que je ne le croyais*

(192) Xen. *An.* 5,6,16: (Ξενοφῶν) ... ἐθύετο πρίν τινι εἰπεῖν
‘Xenophon made a sacrifice before speaking to anyone’

2. The temporal relation and modality of the POST clauses change when the main clause is negated. Historically, POST clauses, like ANTE clauses with

127. That is a legacy of the underlying “particle” comparative, see Bertocchi and Orlandini (1996: 196–198).

postquam, are based on the inequality comparative construction (see Section 3.2.2). That is, within the scope of a polar operator is the "parameter", naturally with the following consequences: under main clause negation the temporal clause is (1) factively presupposed, (2) anterior to the main clause if this is telic (193), and it specifies its right boundary when the main clause is atelic, see (194) (192).

(193) Cic. *ad Brut.* 7,2,1: *non prius exercitum Apollonia Dyrrachioque mouisti quam de Antoni fuga audisti*
'you did not relocate the army from Apollonia and Dyrrachium before you heard about the flight of Antonius'

(194) Caes. *Gall.* 1,53,1: *hostes terga uerterunt neque prius fugere destiterunt, quam ad flumen Rhenum peruenerunt*
'the enemies turned their backs, nor did they stop fleeing before they reached the Rhine'

Thus in the former case it becomes an expressive alternative to an ANTE clause with *postquam* (the focus lies in the main clause ∼ *tum demum mouisti, postquam* . . . , see Kühner & Stegmann 1914, 2: 371);[128] in the latter case it becomes an alternative to the clauses abutting POST on the "left" (see Table 1) with the semantic function *terminus ad quem* (∼ *neque fugere destiterunt, donec . . . uenerunt*).[129]

3. The property "nonpresupposed" of the nonnegated POST clauses is the basis for its semantic extension to PREFERENCE clauses ('rather than') that Kortmann (1997: 189–190) offers as one of the standard examples of the functional change of temporal subordinators to nontemporal functions (more than 50 % of the POST subordinators have PREFERENCE as their second meaning). This extension is already found in Old Latin, see (195).

128. This also holds for the rare case of *antequam* with imperfect like Liv. 23,30,4: *coriis herbisque . . . uixere nec ante, quam uires ad standum in muris ferendaque arma deerant, expugnati sunt,* which corresponds to a *postquam* + imperfect (∼ *tum demum, postquam uires deerant*, see Kühner & Stegmann *ad loc.*).

129. In German, the semantic adjacency of POST and TAQUEM is manifested in that in TAQUEM the same "illogical" negations turn up as in POST (Kortmann 1997: 183); the "TAQUEM variant" of (190) would be *du kriegst kein Taschengeld bis du* nicht *den Rasen gemäht hast*.

(195) Plaut. *Amph.* 238–240: *sed fugam in se tamen nemo conuortitur / . . . /; animam amittunt prius quam loco demigrent*
'but not one turns in flight; they lose their lives before they give up their positions'

4. A pragmatic extension is the use of POST clauses for discourse structuring purposes (see (196), (197)). Such clauses stand outside the main text level (in Kroon's (1995, 1998) sense they contain "supportive material," see Section 4.2.1) and signal a deviation from the "natural" division of the discourse, whereby the topic mentioned in the temporal clause and already introduced into the discourse is shifted to a later position.

(196) Cic. *Verr.* II 2,2: *atque antequam de incommodis Siciliae dico, pauca mihi uidentur esse de prouinciae dignitate, uetustate, utilitate dicenda*
'before I speak about the misfortunes of Sicily, it seems necessary for me to say a few things about the grandeur, antiquity, and usefulness of the province'

(197) Sall. *Catil.* 4,5: *de cuius hominis moribus pauca prius explananda sunt quam initium narrandi faciam*
'I must explain a little bit about the character of this man before I begin my tale'

4.4.2. Expression formats

The grammatical properties characteristic of the POST clauses emerge from the semantic properties.[130]

4.4.2.1. Clause position. Since the parameter alone stands in the scope of the negation, in the case of negation of the main clause, similarly to a *post quam* modified by a time expression (Section 4.1.2.4), the underlying construction type will be preserved: that is, univerbation fails,[131] and the tem-

130. They hold equally for *prius-* and *antequam*; on the replacement of the former by the latter see Section 1.1 and Table 4.

131. Of the 89 examples of *non prius quam* in the Packard corpus, only in Livy are a few found in juxtaposition and nowhere is there univerbation.

poral clause is postposed (in atelic main clauses the typical postposing of a TAQUEM clause thus results), see (193)–(194). In nonnegated main clauses, on the other hand, all three syntactic variants introduced in Section 3.2.2 appear, namely preservation of the comparative construction type, juxtaposition of "parameter" and subordinator, and univerbation.

(198) Plaut. *Merc.* 456–457: *prius respondes quam rogo :: prius emis quam uendo*
'you answer before I ask :: you buy before I sell'

(199) Lucr. 6,170–171: *sic fulgorem quoque cernimus ante / quam tonitrum accipimus*
'thus we see the flash of lightning before we hear thunder'

(200) Sall. *Iug.* 5,3: *sed priusquam huiuscemodi rei initium expedio pauca supra repetam*
'but before I begin to describe such an event, I will repeat a few things from above'

4.4.2.2. Tense/aspect. The posteriority of POST clauses is determined by the monosemous subordinator. Since there is no regular way of expressing a posterior time relation by a relative tense, the combination of a monosemous subordinator with the absolute tense (cf. (193) and (194)) is functionally motivated to a greater extent than in other indicative temporal clauses. To this context belongs also the *praesens pro futuro* alongside a future or imperative in the main clause (cf. (196); future alongside future main clause is much less common, see Hofmann & Szantyr 1965: 601), which is, similar to the historical present, a technique of reduced tense marking (in a negated future main clause, naturally the means of expression of anteriority, the future II, is regularly used (Hofmann & Szantyr 1965: 601), see (201)).[132] In subjunctive POST clauses, the time relation normally expressed by the relative tense is

132. On the (historical) present as continuation of the Proto-Indo-European technique of reduced tense marking see Sihler (1995: 450). In the Old Germanic languages and still in Modern High German, the *praesens pro futuro* is the normal way of referring to the future, see Sommer (1921: 56, 59–60).

overridden by the time relation determined by the subordinator.[133] This appears in the pluperfects in (202) and (203), which do not express anteriority with respect to the main clause;[134] rather the pluperfect is reduced to aspect function, which it carries as an implication of its anteriority to a preterite, and it can therefore become a functional equivalent of the perfect indicative (see Section 1.3.3 no. 3). An alternative appears in (204) (and also (214) below), where the posteriority is expressed entirely regularly with the imperfect, but for it the aspect remains unexpressed grammatically and is replaced by the *Aktionsart* ("default aspect," see Section 1.3.3). The overriding of the grammatical time relation by the subordinator thus makes possible two competing techniques for representing perfective aspect in the subjunctive POST clause: expression of the aspect by disregarding the expression of the time relation (pluperfect), or expression of the time relation by disregarding the expression of the aspect (imperfect).

(201) Cic. *Caecin.* 81: *tu me ad uerbum uocas: non ante ueniam quam recusaro*
'you challenge me to discuss the wording: I will not come to that before I have stated my objection'

(202) Cic. *Verr.* II 2,171: *hic primo Carpinatius, antequam in istius familiaritatem tantam peruenisset, aliquotiens ad socios litteras de istius iniuriis miserat*
'this man Carpinatius, before he had forged such a close friendship with him (Verres), had several times sent letters to business partners about his unlawful acts'

(203) Catull. 68,80–83: *doctast … Laodamia … /, coniugis ante coacta noui dimittere collum, / quam … hiems / noctibus in longis auidum saturasset amorem*
'Laodamia learnt it, having been forced to let go of her young husband before the long nights of winter had satified her passion'

133. See the discussion of this phenomenon in Cristofaro (2003: 164–165).

134. Misleading are the remarks of Kühner & Stegmann (1914, 2: 370): "Pluperfect, (if) the action of the subordinate clause *in relation to* a past action in the main clause … is to be designated as already completed". That would imply anteriority of the subordinate clause.

(204) Nep. *Arist.* 2,1: *interfuit autem pugnae nauali apud Salamina, quae facta est prius quam poena liberaretur*
'he participated in the naval battle at Salamis, which occurred before he was released from punishment'

4.4.2.3. Modality. Since negated POST clauses are presupposed, in Old and Classical Latin they are regularly in the indicative. If the main clause is nonnegated, the relations are more complicated, since the "conceptual negativity from the main clause perspective" can conflict with the pragmatic knowledge of the speaker about the factual realization of the situation designated by the POST clause.

1. In the present this is the case to a limited extent, because here posteriority after the main clause merges with posteriority after the moment of speech, so that in principle it is open with respect to the moment of speech whether the subordinate clause has been realized yet. Exceptions are pragmatically conditioned, for instance by register (cf. the descriptive example (199)) or by the discourse-structuring function exemplified in (196). In Old Latin, correspondingly, the present subjunctive is still reserved for the expression of deontic modality,[135] see (205) and (206), which both can be paraphrased with a purpose clause. In the preterite, on the other hand, there is a greater possibility that the main clause perspective and the speaker's perspective diverge, from which arises a greater necessity of recognition of (non)factivity. In Old Latin, the modal opposition is used: the subjunctive is exclusively motivated semantically (see Wackernagel 1926, 1: 246, Handford 1947: 161–164), and a considerable number of nonnegated examples with historical perfect indicative contrast with it: 21 of the 22 examples in Bennett are nonnegated and express factivity of the main clause from the speaker's perspective.

(205) Plaut. *Men.* 845–846: *ibo, adducam qui hunc hinc tollant et domi deuinciant, / prius quam turbarum quid faciat amplius*
'I will go and get people who will take him from here and tie up him at home before he causes any more trouble'

135. See Hofmann & Szantyr (1965: 600); but there are also a large number of oblique subjunctives.

(206) Plaut. *Aul.* 148–155: *liberis procreandis . . . / uolo te uxorem / domum ducere. :: Ei occidi. /. . . / Vt quidem emoriar prius quam ducam*
'I want you to take a wife so that you will have children. :: Oh, I am finished . . . I would rather die than marry'

2. In Classical Latin, this situation begins to change: here too, in fact, the perfect indicative is still used in nonnegated main clauses,[136] see (207) and (208), but the process of desemanticization of the subjunctive and hence the gradual loss of the aforementioned possibility of differentiation is already evolving. This process, which ultimately led to the generalization of the subjunctive in Late Latin, can already be followed readily in Caesar: alongside a purpose subjunctive like (209) and (210), where the main clause describes an action controlled by the subject, which *intends* the non-entrance of the subordinate clause situation, there is already found the extension of the subjunctive to cases where the prevention of the subordinate clause content factually results from the main clause; see (211) and (20) above, where the temporal clause corresponds (functionally, of course, not grammatically) to a negated consecutive clause. Finally, the subjunctive is also found where nothing more than the time relation between temporal clause and main clause is expressed. This is the case in (212) and especially clear in (213), where, uniquely in classical-period examples in the corpus, the main clause is negated.[137] The Caesar examples thus anticipate the desemanticization process pursued by the subjunctive, namely, (a) posterior + conceptually negative + intended (209) → (b) posterior + conceptually negative (211) → (c) posterior (213).

(207) Cic. *inv.* 2,62: *pupillus autem ante mortuus est, quam in suam tutelam uenit*
'however, the boy died before he came of age'

(208) Cic. *Lael.* 96: *atque id actum est praetore me quinquennio ante, quam consul sum factus*
'and it happened during my praetorship, five years before I was made consul'

136. Hofmann & Szantyr (1965: 601) say that in Cicero it appears only in early writings and letters; but see (208).

137. Kühner & Stegmann (1914, 2: 370) provide two more classical-period examples.

(209) Caes. *Gall.* 2,12,1: *Caesar priusquam se hostes ex terrore … reciperent in fines Suessionum … exercitum duxit*
'before the enemies recovered from their fear, Caesar led the army into the territory of the Suessones'

(210) Caes. *Gall.* 7,71,1: *Vercingetorix priusquam munitiones ab Romanis perficiantur consilium capit omnem ab se equitatum noctu dimittere*
'Vercingetorix adopted the plan of sending out all of his cavalry at night, before the fortifications were finished by the Romans'

(211) Caes. *Gall.* 6,4,1: *Acco … iubet in oppida multitudinem conuenire. conantibus, priusquam id effici posset, adesse Romanos nuntiatur*
'Acco commanded the people to gather together inside the towns. While they were attempting to do this, it was reported, before this could be accomplished, that the Romans were at hand'

(212) Caes. *Gall.* 1,19,3: *itaque priusquam quicquam conaretur Diuiciacum ad se uocari iubet*
'and so, before anything was attempted, he ordered that Diviciacus be summoned'

(213) Caes. *Gall.* 6,37,1–2: *Germani equites … in castra inrumpere conantur nec prius sunt uisi obiectis ab ea parte siluis quam castris adpropinquarent*
'German cavalry attempted to invade the camp and, because of the trees in the area, were not seen before they were at hand'

3. The post-classical development is summarized by Wackernagel (1926, 1: 246) and Handford (1947: 161–164): in the middle of the first century the generalization of the subjunctive was in full swing.[138] An illustrative example is (214) because of the contrast with (215). Among the corpus authors, Seneca still preserves the indicative in negation of the main clause (9 examples with perfect indicative); after him, the subjunctive encroaches further in negation (still 1 example, contra Wackernagel's claim, in the indicative, in Curtius (8,10,30), 2 in Tacitus vs. 3 in the subjunctive, see, e.g., (216)). In Late Latin

138. See also *ThLL* 156,46 on *antequam*: *passim apud scriptores aevo Ciceroniano recentiores, quorum pars, velut Curt. Sol. Hier. (Vulg.) Sulp. Sev. al., indicativum vitasse videtur.*

it is pervasive (see *ThLL* 2,156,46), even in the classicizing "Egeria" (Milani 1969: 396) and, for instance, in Augustine (see (217)). This generalization of the subjunctive in POST clauses continues in the Romance languages (see Imbs 1956: 521–530).

(214) Sen. *epist.* 54,4: *ego illam (= mortem) diu expertus sum. 'Quando?' inquis. Antequam nascerer*
'I learned about death a long time ago. "When?" you ask. Before I was born'

(215) Cic. *Rab. perd.* 25: *quae causa ante mortua est quam tu natus es*
'this case was dead before you were born'

(216) Tac. *ann.* 15,39,1: *eo tempore Nero Anti agens non ante in urbem regressus est, quam domui eius … ignis propinquaret*
'Nero was then at Antium and did not return to Rome before the fire had nearly reached his house'

(217) Aug. *c. Cresc.* 2,9,11: *qui … non ante incipiunt esse nostri, quam esse destiterint uestri*
'they do not start to be ours, before they will have ceased to be yours'

5. Contingency

– '*in cases when* p, q'; *whenever* p, q' (Kortmann 1997: 85)

Contingency clauses belong to the means of expression for indefinite plurality of situations. They are dealt with in this chapter and at this point because they preferably are introduced by temporal subordinators with the basic function time location.

5.1. Semantics

5.1.1. Types of situational plurality

The best-known semantic typology of verbal plurality is probably Dressler's (1968), a "maximal model" (Xrakovskij 1997: 6) with the four main types

iterative, distributive, continuative, and intensional and 21 subclasses in all. For our purpose the simpler model of Xrakovskij (1997) suffices, which distinguishes three main types, namely multiplicativity, distributivity, and iterativity, that result from combining the two parameters "time" and "actant," each of which has two possible values (labeled (a) and (b) here):

1. Time: (a) a situation is repeated several times within a specific time span ("terminal" plurality); (b) a situation is repeated at various points in time ("nonterminal" plurality).
2. Actant: (a) the participants in the plural situations are identical; (b) the participants in the plural situation are not (entirely) identical.

This yields the following three main types:[139]

– Multiplicativity (1a + 2a):

(218) Cic. *off.* 3,38: *(Gyges) tum in concilium se pastorum recepit. Ibi cum palam eius anuli ad palmam conuerterat, a nullo uidebatur, ipse autem omnia uidebat; idem rursus uidebatur, cum in locum anulum inuerterat*
'then Gyges returned to the gathering of the herdsmen. And whenever he turned the signet of his ring inward toward his palm, he was seen by no one, although he himself saw everything; and he became visible whenever he turned the ring back around'

– Distributivity (1a + 2b):

(219) Caes. *Gall.* 7,48,2: *eorum ut quisque … uenerat, sub muro consistebat*
'and as each of them arrived, he stood beneath the wall'

– Iterativity (1b + 2a):

(220) Plaut. *Aul.* 198: *ego istos noui polypos, qui ubi quidquid tetigerunt tenent*
'I am acquainted with those octopuses which latch onto whatever they touch'

139. The repetition of a situation can of course occur definite times, which we leave aside in our context. Examples (218ff.) are therefore limited to the CONTINGENCY clauses here under discussion, i.e. to indefinite plurality.

(221) Catull. 84,1–4: *'chommoda' dicebat, si quando 'commoda' uellet / dicere, ... / et tum mirifice sperabat se esse locutum, / cum quantum poterat dixerat 'hinsidias'*
'*chommoda* Arrius always said when he wanted to say *commoda*, and he always trusted that he spoke brilliantly when he said *hinsidias* in as impressive a voice as he could muster'

The boundary between multiplicativity and iterativity, however well grounded theoretically ("terminal" vs. "nonterminal" plurality), is nonetheless not easy to draw, because it cannot always be determined without further ado whether an author conceives the repetition of a situation within a delimited time span or spread over several. Alongside prototypical cases like (218) (repetition within the time span defined by *ibi* = *concilium pastorum*) and (221) (spread over indefinitely many time spans), there are cases like (232) below, where it is open whether the author conceives of the event as lying within a time span (the *pugna*) or as the result of individual events. Therefore multiplicativity and iterativity are often silently collapsed into iterativity, especially as the distinction is not grammaticalized in Latin; and so they are here, too.[140]

5.1.2. CONTING *as a special case of situational plurality*

CONTING clauses, called by Xrakovskij (1997: 23) "polypredicative iterative-correlative constructions," are a special case of indefinite situation plurality, because they combine quantification with conditionality: unlike normal temporal clauses, where the validity of the main clause does not depend on the temporal clause, here we have the interdependence relation between main clause and subordinate clause typical of conditional clauses. They are a grammaticalization of this combination, since its two components of course can occur in principle syntactically independent of each other. This is the case in (222), which describes the reaction of Pompey to repeated provocations by Caesar. It contains only the indefinite quantification (*semper*), while the con-

140. Oldsjö (2001: 225) likewise distinguishes only iterative and distributive; he defines iterativity as repetition within a relatively short time span, thus narrowing it to Xrakovskij's "multiplicativity".

ditioning, Caesar's provocations, have already been described in the previous chapter.

(222) Caes. *civ.* 3,85,1: *Pompeius … ad infimas radices montis aciem instruebat, semper, ut uidebatur, expectans, si iniquis locis Caesar se subiceret*
'Pompey was readying the army at the foot of the mountain, on the same prospect as always (as was shown), namely that Caesar would engage him on unfavorable terrain'

5.1.3. The plurality continuum of iterative clauses

If the repetition of the situation is nonterminal, that is, in iterativity, there is a continuum of frequency, generic–habitual–plurioccasional: the situations repeat regularly, usually, or indefinitely often:[141] *generic* sentences describe situations that repeat "lawlylike" (Dahl 1985: 99); in principle they thus have "nomic" character. Correspondingly, the two aforementioned parameters "time" and "actant" here preferably appear with the most limited level of specificity, namely in (timeless) present and with genericness (223) or indefiniteness (224)[142] of the participants.

(223) Varro *rust.* 2,4,6: *(apes) hiberno tempore non prius exigunt pastum, quam pruina euanuit ac conliquefacta est glacies*
'in winter the bees do not require food before the frost has disappeared and the ice has melted'

(224) Plaut. *Amph.* 79: *sat habet fauitorum semper qui recte facit*
'the man who conducts his affairs with honesty is never short of patrons'

Habitual sentences ((225)–(226)) signal that "what is expressed in the sentence took place in the majority of those occasions" (Dahl 1985: 97); they

141. See Dahl (1985: 95–102). Semantic analyses here often assume implicit quantity adverbs "always, usually, sometimes," see Farkas and Sugioka (1983). These adverbs are "unselective quantifiers," i.e., those that bind all free variables of an open clause, and determine how many values of the free variables make the clause true.

142. See also (3) in Section 1.2.

can therefore include expressions that signal usual or frequent repetition of the situation, such as *persaepe* and *plerumque* in (225) and *solebas* in (226) (see Oldsjö 2001: 225). *Plurioccasional* sentences ((227)–(228)), conversely, contain no such indications, since they simply indicate an indefinitely frequent repetition at distinct time points.

(225) Cic. *Marcell.* 19: *cum tua recordabere, etsi persaepe uirtuti, tamen plerumque felicitati tuae gratulabere: de nobis … quotiens cogitabis, totiens de maximis tuis beneficiis … cogitabis*
'when you think back on your life, you will be thankful – thankful often for your excellence but thankful mostly for your good fortune: however often you call us to mind, you will call to mind your greatest benefactions'

(226) Catull. 1,3–6: *tu solebas / meas esse aliquid putare nugas / iam tum, cum ausus es unus Italorum / omne aeuum tribus explicare chartis*
'you used to think that my trifles were valuable, at a time when you alone of the people of Italy had the daring to reveal the history of the world in three books'

(227) Plaut. *Amph.* 199–200: *cum pugnabant maxume, ego tum fugiebam maxume; / uerum quasi adfuerim tamen simulabo*
'when they were fighting their hardest, I was fleeing my hardest; however, I will certainly act as though I was present'

(228) Cic. *Catil.* 4,12: *cum uero mihi proposui regnantem Lentulum … tum lamentationem matrum … perhorresco*
'when I imagine Lentulus as king, I shudder at the cries of mothers'

5.2. Expression formats

The semantic and grammatical indicators of indefinite situation plurality include, according to Xrakovsij (1997), (1) *Aktionsart*: Telic *Aktionsart* is better suited for its expression than atelic, because the presence of the right boundary in the former makes the situations more easily countable. (2) Determination status of the participants: generic plurality (see Section 5.1.2 above) is

connected with generic participants (see (223)), distributivity often with distributive quantifiers like *quisque* (see (219) and (229)) or indefinite substantival relative clauses (also in (229)).[143] (3) Lexical indicators, especially adverbials, that reflect the aforementioned plurality continuum: "nomic" (*quotannis*), habitual (e.g., *semper* in (222)), and (indefinite) iterative (*interdum*, *raro*). (4) Linguistic means that occur beyond the clause boundaries and can trigger the plural interpretation of a situation; this holds, for instance, for *saepe deciens* in (230). And finally, (5) Grammatical categories that regularly or occasionally express situational plurality; the latter applies in Latin to the imperfective aspect (see Section 5.2.2).

(229) Plaut. *Poen.* 483–486: *quemquem uisco offenderant, / tam crebri ad terram accidebant quam pira. / ut quisque acciderat, eum necabam ilico*
'they hit each (flying man) with birdlime, and (the flying men) fell to the earth as numerous as pears. As soon as each fell, I slew him immediately'

(230) Plaut. *Mil.* 856: *(ea saepe deciens complebatur) ubi bacchabatur aula, cassabant cadi*
'the jar was often filled ten times, and when it was taken in bacchantic revelry the wine casks danced'

5.2.1. Subordinators

CONTING subordinators in Latin are based preferentially on subordinators whose basic function is SIOVER, which is fully in accord with Kortmann's typological findings.[144] All relevant subordinators can be used to introduce CONTING clauses, such as *ut* in (219), *ubi* in (220), and *cum* in (225). On a smaller scale other subordinators appear as well, such as *priusquam* in

143. On the substantival relative clause as the functional equivalent of a conditional clause with indefinite subject, see Lehmann (1984: 330–337).

144. See Kortmann (1997: 186). The reverse development of SIOVER subordinators from CONTING subordinators is found in European languages only in Modern Greek οπότε and Dutch *wanneer*.

(223).[145] Competing with these temporal subordinators, as is common in other European languages,[146] are (1) Conditional subordinators; in Kortmann's data (1997: 181) they come second to SIOVER subordinators. Evidently, the normal difference between *if*- and *when*-clauses with regard to the level of speaker certainty[147] is neutralized in CONTING clauses, since conditional and temporal subordinators occur indifferently side by side, see (231) and (232). (2) Local subordinators, see *ubi* in (233). (3) The monosemous *quotiens(cumque)* (often in a diptych with *totiens*), see (225) and (234). (4) Other relative clauses, namely the substantival clause (see (229)) and the proportional clause (see (235)). (5) The clause-series,[148] which is morphologically unmarked but is recognizable from the preposing of the conditioning situation, see (236).

(231) Ter. *Eun.* 439–444: *id ut ne fiat haec res solast remedio: / ubi nominabit Phaedriam, tu Pamphilam / continuo; siquando illa dicet … / … / … / ; si laudabit haec illiu' formam, tu huiu' contra*
'there is only one remedy: when she mentions Phaedria, immediately mention Pamphila; if she happens to say … ; if she praises his appearance, praise hers in turn'

145. *Ante-/priusquam*, in contrast to *cum*, etc., remain to a great extent limited to present main clauses. Kühner & Stegmann (1914, 2: 372) say that iterative imperfects and pluperfects are "very seldom" attested, without, however, offering any examples in the indicated spot (2: 206–207); and none are found in the corpus. Iterative use of *postquam* is not detectable (Kühner & Stegmann 1914, 2: 358). On the iterative use of *donec* in, e.g., Livy see Hofmann & Szantyr (1965: 630) (not in the corpus).

146. See Kortmann (1997: 191–193); on the relationship between iterative temporal clauses and conditional clauses in the Indo-European languages see Lühr (1989: 159).

147. Givón (2001, 2: 32): "Under a conditional interpretation [of *when*] the speaker has lower epistemic expectations concerning the … truth of the … clause, under a temporal interpretation the speaker has higher epistemic expectations". See also Harder (1997), reverting to Fillmore's term *epistemic stance*.

148. Term after Bickel's (1991) *Reihung*; it distinguishes the iconic representation of a "protasis–apodosis structure" from plain parataxis.

(232) Caes. *civ.* 1,79,1–2: *genus erat hoc pugnae .... si mons erat ascendendus, facile ipsa loci natura periculum repellebat ...; cum uallis aut locus decliuis suberat ... equites uero ex loco superiore in auersos tela coiciebant, tum magno erat in periculo res*
'the type of fighting was the following: if a mountain needed to be scaled, the very nature of the place easily fended off danger; when a valley or downward-sloping terrain lay before them and the (enemy) cavalry from higher ground was heaving javelins against them from behind, the situation was then extremely dire'

(233) Cato *agr.* 34,1: *ubi quisque locus frigidissimus aquosissimusque erit, ibi primum serito*
'where a place is coldest and wettest, there sow your seeds first'

(234) Cic. *Q. Rosc.* 18: *nonne, quotienscumque in causa in nomen huius incidisti, totiens hunc ... uirum bonum esse dixisti?*
'did you not, however often you happened upon his name in the cause, just as often say that he was a good man?'

(235) Caes. *Gall.* 5,45,1: *quanto erat in dies grauior atque asperior oppugnatio ... tanto crebriores litterae nuntiique ad Caesarem mittebantur*
'the more painful and hopeless the attack daily became, the more frequent became the letters and couriers sent to Caesar'

(236) Cic. *Tusc.* 3,57: *de paupertate agitur: multi patientes pauperes commemorantur*
'if poverty is the topic, many poor men of forebearance are quoted'

5.2.2. Tense and aspect

Latin is one of the languages that have a grammatical means of expression for indefinite situational plurality.[149] In CONTING constructions, it is the combination of imperfective aspect in the main clause and the relative tense in the temporal clause, which stands in opposition to the absolute tense in indicative temporal clauses (Kühner & Stegmann 1914, 2: 152–153).

149. German, for instance, is not one of them. Surveys in Dahl (1985: 100–101) and Xrakovskij (1997 passim).

1. The association of imperfective aspect with indefinite situation plurality[150] is in opposition to the association of definite situation plurality with perfectivity (see Haverling, this work, vol. 2, Section 4.1.2). It is functionally motivated: the suspension of the right bound of the situation, which is implied by the imperfective aspect (Section 1.3.3), serves as a mechanism for abstracting from the actual instantiation of the situations that are described and for considering the totality of individual situations as an overall entire situation instead. In Hedin's (2000) term, a *type reading* of the situation takes place: to the extent that the situations are telic, their right bound is only part of the definition of the situation, but not the object of the assertion.[151] In the imperfect the semantic conflict between telic *Aktionsart* and imperfective aspect function comes sharply to the fore in the form of a "pointed aspectual meaning";[152] see the imperfect in the main clause of (229) and (237).

2. Likewise functionally motivated is the relative tense of the subordinate clause. It is (similar to the case of temporal distance, see Section 4.1) an iconic means of emphasizing the above-described interdependence relation between main clause and subordinate clause. Since in "normal" indicative temporal clauses with absolute tense this interdependence relation does not exist, there arises a grammatical mechanism for differentiating between reference to pluralic vs. individual situations and thus a means of compensation for the extensive polysemy of most of the CONTING subordinators. With the monosemous subordinator *quotiens* this mechanism is unimportant, and correspondingly it also appears in the "absolute" perfect, see (234).[153] Naturally the monosemizing function of the relative tense is of unequal specificity. The

150. It is not universal, see the examples of other languages in Dahl (1985: 78–79). For Classical Latin, see the detailed investigation in Oldsjö (2001, chap. 6).

151. See Hedin (2000: 230): "The actual instantiation is simply irrelevant … its accomplishment is neither stated nor denied".

152. See Oldsjö (2001: 183); individual investigations in chap. 6.

153. In the Imperial-period examples from the corpus (the only period when *quotiens* is extensively enough attested to enable evaluation of the distribution of the tenses), in the preterital examples there is a ratio of 6 with imperfect to 11 with perfect in main clauses. Of course iterative verbs like *solere* and *uentitare* can just as well appear in the perfect, see Haverling (this work, vol. 2, Section 4.1.2).

highest level prevails in anteriority with respect to a a preterital or a present main clause. The relative meaning of the tenses contrasts here with the deictic meaning of the absolute tenses: the pluperfect with the historical perfect, and the perfect reduced to the expression of anteriority with the present time reference of the present perfect (in examples like (223) it is not the completion of the situation at the moment of speech that is expressed, but only its anteriority to a "timeless" main clause situation). For simultaneity in the preterite (imperfect), situational plurality is only indicated unambiguously when at least one of the two clauses has telic *Aktionsart*, such as in (237); if that is not the case, the interpretation depends on contextual signals like *saepe deciens* in (230).

(237) Cato *or. frg.* 6,1: *cum Romam ueniebant, prorsus deuertebantur ... ad amicos suos*
'when they came to Rome, they sought out their friends'

The relative tense as means of expressing iterativity erodes in the post-classical period as a result of the transition to the subjunctive, whereupon in *cum*-clauses the distinction between *cum iterativum* and *cum historicum* is lost. This begins already in the classical period, as in (238).

(238) Caes. *civ.* 2,41,6: *cum cohortes ex acie procucurrissent, Numidae ... impetum nostrorum effugiebant, rursusque ad ordines suos se recipientes circumibant et ab acie excludebant*
'whenever the cohorts rushed forward from the line of battle, the Numidae fled our attack, and, bringing themselves back into ranks, surrounded the cohorts and separated them from the main fighting force'

This development is obviously triggered by the dominance of the *cum historicum* established in Classical Latin (see Hale 1891: 283–298, Kühner & Stegmann 1914, 2: 206–207, and Hofmann & Szantyr 1965: 624). In favor of the connection to the *cum historicum* are the facts that at first the subjunctive gains ground in such *cum*-clauses as are related to preterital main clauses, and that the extension to present and perfect subjunctives ensued only post-classically and to a limited extent. The extension of the subjunctive to the other subordinators listed above ensues in the post-classical period: for Livy

every occurrence except *quotiens* is attested with the subjunctive;[154] but subjunctive and indicative can still appear side by side, see (239). *Quotiens* with subjunctive is attested since Quintilian; in Tacitus it is already more common than with indicative (24 : 13, see (240)), and in Late Latin the "iterative subjunctive" is then "quite usual" with all the subordinators (Hofmann & Szantyr 1965: 624).

(239) Liv. 21,42,3–4: ⟨*ut*⟩*cuiusque sors exciderat, alacer ... arma raptim capiebat. ubi uero dimicarent, is habitus animorum non inter eiusdem modo condicionis homines erat sed etiam inter spectantes*
'and when the lot of battle fell to one of the prisoners, eagerly he would snatch up his arms. When they were fighting, however, a feeling was shared not just among their fellow prisoners but even among the spectators'

(240) Tac. *ann.* 6,21,1: *quotiens super tali negotio consultaret, edita domus parte ... utebatur*
'whenever he took counsel on such a matter, he used the upper part of the house'

6. Time extent

6.1. Co-extensiveness and *terminus ad quem*

– Simultaneity co-extensivness (SICOEX): '*p* opens a time interval for the whole of which *q* is true' (Kortmann 1997:84):

(241) Plaut. *Epid.* 177: *Hercules ego fui, dum illa mecum fuit*
'I was a Hercules while she was with me'

154. See the overview of the development of the subjunctive since the classical period in Riemann (1885: 294–296): "assez rare avant T.-L., ... fréquent chez lui".

– Terminus ad quem (TAQUEM): ‘*p* identifies a point or period of time in the (relative) future up to which *q* is true’ (Kortmann 1997: 85):

(242) Ter. *Eun.* 206: *concedam hinc intro atque exspectabo dum uenit*
‘I will go inside and wait until he arrives’

6.1.1. Semantics

The semantic functions SICOEX and TAQUEM measure the extension of an atelic main clause situation with different “measurement techniques”: SICOEX quantifies the extension of the main clause via a relation with an atelic subordinate clause situation, and TAQUEM specifies a right boundary for the main clause via a relation with a telic (or ingressive) subordinate clause situation.[155] While SICOEX is thus a simple semantic function, TAQUEM is a combination of time extent and time location. There is a close semantic connection between the two semantic functions, since TAQUEM implies the negation of SICOEX;[156] (243) and (244) illustrate this with the example of the oldest attestations for the extension TAQUEM → SICOEX in *donec* and *quoad*. The measurement of the extension of the atelic main clause via a *donec/quoad* clause presupposes a terminus of the main clause; this can be put into words via negation of the subordinate clause: (243) ∼ *donec uoluptas deficit*, (244) ∼ *quoad moriar*. This phenomenon already bemused ancient “linguistics” (245). Because of this connection, the extension of one semantic function to another is a very common phenomenon. For TAQUEM subordinators, Kortmann (1997: 181) reveals SICOEX as second semantic function in 67.7 % of all cases, and the opposite still holds in 51.8 % of all cases. The most likely candidate for a third semantic function in both cases is the semantic function adjacent to SICOEX on the left, “simultaneity duration” (40,

155. TAQUEM corresponds to Haspelmath’s (1997: 32–35) term *anterior-durative* (‘until-a-time’), SICOEX to his term *atelic extent* (‘for-x-time’); distinct from the latter is *telic extent* (‘in-x-time’), which presumes a telic main clause: *Tony painted the picture in five hours*.

156. See Kortmann (1997: 183–184) ‘*q*, until *p*’ asserts ‘*q*, as long as not-*p*’. For Latin, Poirier (1996). For the semantic connection of TAQUEM and *non prius . . . quam* see Section 4.4.1 above.

or 42.4 %), which in Section 2 above we have treated as a special case of SIOVER.

(243) Lucr. 5,177–178: *natus enim debet quicumque est uelle manere / in uita, donec retinebit blanda uoluptas*
'whoever is born must want to stay alive as long as he retains his joie de vivre'

(244) Varro *rust.* 1,1,2: *non solum (experiar), ut ipse quoad (v.l. quaad) uiuam, quid fieri oporteat ut te moneam, sed etiam post mortem*
'not only for as long as I live, but after death as well, I will serve to remind you what to do'

(245) Gell. 6,21,1–3: *'quoad uiuet' ⟨cum dicitur⟩, cum item dicitur 'quoad morietur', uidentur quidem duae res dici contrariae; sed idem atque unum tempus utraque uerba demonstrant . . . Tempora enim duo cum inter sese opposita sunt atque ita cohaerentia, ut alterius finis cum alterius initio misceatur, non refert, utrum per extremitatem prioris an per initium sequentis locus ipse confinis demonstretur*
'when the expressions *quoad uiuet* [so long as he lives] and *quoad morietur* [until he dies] are used, two contrary ideas indeed seem to be expressed; but both expressions indicate one and the same timespan. For when two timespans are opposed to each other and thus contiguous, such that the end of the one is in contact with the beginning of the other, it is irrelevant whether their point of intersection is indicated via the end of the earlier or the beginning of the later'

Moreover, for both semantic functions there are extensions into the CCC network: (1) of SICOEX to the conditional clause, whereupon the co-extension of the main clause with the subordinate clause is elevated to the condition under which the main clause content holds (246) or is conceded ((247); the more common case, hence the negation *ne* in the subordinate clause, see Hofmann & Szantyr 1965: 616). (2) of TAQUEM clauses to a combination of the *terminus ad quem* and finality, whereupon the situation that marks the right bound of the main clause is interpreted as the situation whose accomplishment is intended ((248), (249)). While the first of these extensions is well attested cross-linguistically (see Kortmann 1997: 190, e.g. Ger. *solange*, Eng. *as long as*, Sp. *siempre que*), the development of TAQUEM into genuine final clauses

is rare.[157] In Latin too, the extension is limited to the semantic enrichment of the semantic function TAQUEM, since the temporal overlapping (248) or at least direct adjacency (249) of main clause and subordinate clause situations remains obligatory, while regular final clauses undergo no such limitation.[158] While in Latin this combination of TAQUEM and finality is expressed with the combination of a temporal subordinator with the subjunctive, the possible German translation of (248), *damit unterdessen sich die Hitze legt*, illustrates the inverse procedure, namely, the combination of a purpose subordinator with an adverb for time extent.[159]

(246) Plaut. *Men.* 90–92: *dum tu illi (= captiuo) quod edit et quod potet praebeas, / . . . / numquam edepol fugiet*
'for as long as you continue to offer the captive anything to eat or drink, he will certainly never leave'

(247) Cic. *Att.* 8,11b,3: *ego si cui . . . uideor segnior fuisse, dum ne tibi uidear, non laboro*
'if I seem rather lazy to anyone, I am not concerned, just as long as I do not seem that way to you'

(248) Cic. *de orat.* 1,265: *nunc et Scaeuola . . . paulum requiescet, dum se calor frangat*
'Scaevola will rest a little bit while the heat abates'

(249) Liv. 37,12,6: *tantum moratus, dum Eumenes cum classe adsequeretur, Samum petere intendit*
'having waited until Eumenes with his fleet overtook him, he set out for Samos'

157. Kortmann (1997: 191): "The widely observable development from markers of anterior time to CAUSE has no counterpart in the domain of posterior time such that adverbial subordinators signalling 'until' . . . develop as purposive markers".
158. On the occasional genuine final function of *donec* in Late Latin see Hofmann & Szantyr (1965: 630).
159. The conditional or purpose interpretation, however, is also possible through pure pragmatic inference in the indicative (as in English, see Quirk et al. 1985: 1083,1088), which in TAQUEM clauses because of their posteriority also often suggests itself, see, e.g., Cic. *epist.* 3,5,4: *perpaucos dies, dum pecunia accipitur quae mihi ex publica permutatione debetur, commorabor*.

6.1.2. *Expression formats*

To the semantic adjacency of the semantic functions SICOEX and TAQUEM corresponds in Latin on the expression side the existence of three subordinators, each of which can express both of these semantic functions, namely *donec*, *quoad*, and *quamdiu*. This actually reflects the adjacency of the semantic functions and not a stage of semantic underdifferentiation (so Kortmann 1997: 185), since these subordinators were originally monosemous and the respective other semantic functions only innovate on the model of *dum* from the time of Classical Latin. *Dum*, however, does deserve the epithet "underdifferentiated", since from the beginning of its existence as a subordinator it had the aforementioned array of polysemy SIOVER/SICOEX/TAQUEM and thus also straddled the border between time location and time extent. Between the subordinators named, there are also diachronic, as well as semantic and quantitative, differences, namely:

1. The different origins: *Dum* is, as we have seen in Section 3.2.1.2, a polysemous subordinator for time extent functions, in which the differentiation between the semantic functions originally rested exclusively on the free combination of *Aktionsarten*. *Donec* and *quoad*, on the other hand, have inherent telic meaning from the very beginning (Section 3.2.2) and correspondingly appear in Old Latin still exclusively in the semantic function TAQUEM, as in (250) and (251); their extension to the semantic function SICOEX succeeded at different times (see below). *Quamdiu*, finally, has inherent atelic meaning and therefore remains limited to the semantic function SICOEX (252) until the end of the first century CE. *Donec* from the beginning has the syntactic function of adverbial temporal subordinator, while *quoad* in Plautus is still an interrogative and relative adverb with several semantic functions, including degree ((253) and (254)).[160] *Quoad* has temporal function in Plautus only in (255), where it is expressed by the substantival nucleus of the relative construction (*dies*). Only with Terence can we speak of a temporal semantic function TAQUEM, but not of an adverbial subordinator: *quoad* is an interrogative adverb in (251) and a complementizer in (256). *Quamdiu* too in Old Latin is not yet a temporal subordinator, but an interrogative; a transitional

160. (251) and (253)–(256) document the entire Old Latin stock of *quoad*.

state is shown in (257). Then in Cicero's correspondence the ratio of temporal subordinator to interrogative is already 15 : 4.

(250) Plaut. *Merc.* 193–194: *lembo aduehitur tuos pater pauxillulo, / neque quisquam hominem conspicatust, donec in nauem subit*
'your father was brought in a tiny little skiff, and no one saw the man until he boarded the ship'

(251) Ter. *Phorm.* 147–148: *senem / quoad exspectati' uostrum?*
'up until when will you look for your old man?'

(252) Sen. *dial.* 11,12,5: *quam diu inter mortales erit, nihil ex domo sua mortale esse sentiat*
'as long as he is among the mortals, may he not have a feeling that anything of his house is mortal'

(253) Plaut. *Men.* 769: *uerum est modus tamen, quoad pati uxorem oportet*
'there is certainly a limit to what a wife should put up with'

(254) Plaut. *Asin.* 296: *iubeo te saluere uoce summa quo ad uires ualent*
'I greet you with a voice as loud as my strength allows'

(255) Plaut. *Pseud.* 623–624: *nam olim quom abiit, argento haec dies / praestitutast, quoad referret nobis, neque dum rettulit*
'for when he departed a while ago, this day was fixed as that by which he would repay us, but he has not yet done so'

(256) Ter. *Phorm.* 462: *percontatum ibo ad portum, quoad se recipiat*
'I will go to the port in order to investigate when he will return'

(257) Plaut. *Truc.* 324–325: *si proinde amentur, mulieres diu quam lauant, / omnes amantes balneatores sient*
'If women could be loved as long as they take in bathing, all lovers would be bath-keepers'

2. The distinct frequency, time, and intensity of the extension:

According to Table 4, the prototypical adverbial subordinators *dum* and *donec* have the highest frequency in all the periods covered by the corpus. As for *quoad* and *quamdiu*, which only secondarily appear in the function of temporal subordinator, the former attains notable frequency only in the classical period, the latter only in the Imperial period. The extension TAQUEM →

Table 11. Ratio of the semantic functions SICOEX und TAQUEM with *dum* and *donec* according to the *ThLL*

	SICOEX	%	TAQUEM	%
dum	1215	64.4	672	35.6
donec	160	11.2	1269	88.8

SICOEX in fact is first attested for *donec* in the classical period (in Lucretius, see (243)), but appears to a great extent only in the Augustan period. Even then it remains quantitatively limited. The *ThLL*, in contrast to *donec*, does not give all the attestations for *dum*; but its data are sufficient to establish the ratio of the semantic functions SICOEX and TAQUEM in the two subordinators: as Table 11 shows, *donec* clearly maintains its center of gravity in the semantic function TAQUEM.

With *quoad*, this extension occurs earlier and also achieves greater success. The oldest examples (including (244), see Hofmann & Szantyr 1965: 654) in fact belong to the same period as the oldest for *donec* (243), but are not isolated like the latter; in Cicero's correspondence the semantic functions TAQUEM and SICOEX with 20 and 22 examples have already approached the same frequency. With *quamdiu* the extension SICOEX (252) → TAQUEM (258) occurs last, only at the turn of the century (Just. *Dig.* 45,1,1,06, see *ThLL* 1, 1561,54, in Christian Latin since Tertullian *de anima* 40); similarly to the development of *dum* and *donec*, the subjunctive is used mostly, but to a narrow extent also the perfect indicative as in (258) (*ThLL* 5.1, 1563,15–28). Here too the extension remains limited.[161] The spread of *quamdiu* in Late Latin[162] at the expense of its rivals is reflected in the commentary of Donatus (259).

161. See the data in *ThLL ad loc.*: the cited Tertullian reference is the only one for TAQUEM for this author.
162. CLCLT-5 offers for "Antiquity" 221 in all (*quam diu* 130, *quamdiu* 180), for "Patristic age" (∼500 CE) 1215 examples (only 11 of them still not univerbated).

(258) Amm. 25,3,12: *concursus itaque armatorum et cadentium gemitus … audiebatur, quamdiu … nox diremit certamina iam tenebrosa*
'the clashing of armed men and the groans of those dying continued to be heard until the dark of night interrupted the struggle'

(259) Don. *Ter. Hec.* 414: *'dum' alias dummodo, alias donec, nunc quamdiu*
'*dum*, elsewhere *dummodo* or *donec*, now *quamdiu*'

Because of these distinct preconditions, the different time extent clauses have distinct developments.

6.1.2.1. Dum. The originally *Aktionsart*/mood-based difference between the semantic functions, after the loss of the old restrictions (connection with the imperative and corresponding limitation to the present and postposition, see Section 3.2.1.2), can be supplemented by additional means, namely tense/aspect and clause order.

1. The preterital aspect opposition[163] becomes a characteristic means of expression of the semantic function SICOEX and is used to signal the background/foreground function (see (260) and (261)).[164] In contrast, the semantic function SIOVER remains bound to the present (Section 4.1.2.1), and the semantic function TAQUEM is functionally incompatible with the imperfect indicative (no examples in *ThLL*).

(260) Caes. *Gall.* 7,82,1: *dum longius a munitione aberant Galli, plus multitudine telorum proficiebant; posteaquam propius successerunt …*
'while the Gauls were so far off from the fortifications, they profited greatly from the immense number of their projectiles; after they approached … '

163. On its implementation in Latin in atelic *Aktionsarten* as well (states and processes), see Haverling (this work, vol. 2, Section 4.1.4).

164. As a rule the *dum*-clause then copies the tense/aspect of the main clause; different aspect in the subordinate and main clauses is regularly semantically motivated, according to Hofmann & Szantyr (1965: 612), as in Sall. *Iug.* 14,10: *dum Carthaginienses incolumes fuere, iure omnia saeua patiebamur*, by the "logical perfect" "mit der Nebenvorstellung des endgültigen Vorbeiseins" (Hofmann & Szantyr 1965: 318).

(261) Sen. *epist.* 21,6: *quoscumque in medium fortuna protulit, ... horum gratia uiguit, ... dum ipsi steterunt: post ipsos cito memoria defecit* 'whoever has been pushed into the limelight by fortune has found abundant favor for as long as he has kept his position: afterward he has quickly disappeared from memory'

2. A characteristic grammatical means of expression for the semantic function TAQUEM, on the other hand, is, because of the frequent purposive side-meaning of TAQUEM clauses, the subjunctive, which as a consequence is also extended to the preterite. For the semantic function SICOEX, on the other hand, the subjunctive plays as little a role as in Old Latin and classical SIOVER. The extension of TAQUEM clauses into the perfect indicative achieved a narrower compass;[165] in this case the differentiation with respect to perfective SICOEX is still possible only on the basis of the *Aktionsart*. Thus (262) illustrates the predominant type in Classical Latin, (263) the rarer.

(262) Sall. *Catil.* 14,6: *neque sumptui neque modestiae suae parcere, dum illos obnoxios fidosque sibi faceret*
'he spared no cost and knew no boundaries while he was making them subservient and loyal'

(263) Catull. 44,13–14: *hic me grauedo frigida et frequens tussis / quassauit usque dum in tuum sinum fugi*
'thus a cold and a constant cough shook me until I escaped into your embrace'

3. As for clause order, TAQUEM clauses tend to preserve the old postposing, which at this point instead of being grammatically determined (after the imperative) is iconically motivated by the function of marking the right boundary of the main clause situation.[166] There thus arises an opposition to the SIOVER clauses, which because of their function of main clause inclusion incline toward preposing (Section 4.1.2). The position of the SICOEX

165. See the statements in Poirier (1996: 323).

166. The rare divergences are conditioned by text coherence, as in Cato *agr.* 149.2: *si quid dominus .... emptori damni dederit, uiri boni arbitratu resoluetur. donicum pecuniam soluerit .... pecus et familia .... pigneri sunto.*

clauses, on the other hand, is fundamentally variable corresponding to the relevant pragmatic requirements. Preposing and postposing can be conditioned by iconicity to an equal extent, compare (260), where the situation outlined in the *dum*-clause is ended by the following sentence, with (261) and (264), where the subordinate clause describes the situation before crossing the presupposed terminus (∼ 'until they fell', 'before they are too big'; see Section 6.1.1 above).[167]

(264) Colum. 6,26,1: *castrare uitulos Mago censet, dum adhuc teneri sunt*
'Mago advises that the calves be castrated, as long as they are still young'

4. In the post-classical period, the subjunctive loses its value as means of differentiation. For one thing, the number of nonpurpose subjunctives in the semantic function TAQUEM quickly increases because of the spreading desemanticization of the subjunctive (see *ThLL* 5, 2201): the development is already flourishing in Livy and completed in Tacitus (e.g. (265)). On the other hand, since in the semantic function SIOVER the subjunctive increases as well (by analogy with the *cum historicum*, cf. Section 3.4), it ceases to function as a means of distinguishing between SIOVER and TAQUEM. The two developments lead to a strong predominance of subjunctive forms, see Table 12 line 2, where the relevant figures resulting from *ThLL* 5, 2213,38–2218,37 are presented. The parameters for distinguishing between TAQUEM and SIOVER are thus reduced to *Aktionsart* and clause order. In contrast, the semantic function SICOEX remains characterized also post-classically by the indicative and the preterital aspect opposition (see Table 12 line 1).

(265) Tac. *ann.* 11,26,3: *nec ultra expectato quam dum sacrificii gratia Claudius Ostiam proficisceretur, cuncta nuptiarum sollemnia celebrat*
'she waited no longer than until after Claudius set out for Ostia for the purpose of performing a sacrifice, and then celebrated all the solemnities of marriage'

167. The clause order main clause–subordinate clause, on the other hand, obviously is often conventionalized by correlativity. An examination of *usque/tantisper … dum* in the PHI corpus turned up only a single exception (Ter. *Ad.* 70).

Table 12. Tense and mood with *dum* 'so long as/until' according to the *ThLL*

	Present		Imperfect		Future	Perfect
	Ind.	Subj.	Ind.	Subj.		Ind.
SICOEX	246	43	74		132	98
TAQUEM	142	259		193		33

6.1.2.2. Donec. *Donec* remains, as already stated, in contrast to *dum*, mainly a subordinator for the semantic function TAQUEM.

1. This original semantic function is principally characterized in Old and Classical Latin by attachment to the perfective aspect. This is shown by the large number of perfects and future IIs in the corpus (see Table 13; the sole example of SICOEX in the classical period, (243), is excluded). Even in the post-classical period this "conservative" state of affairs asserts itself against the "modern" trend toward the subjunctive to a great extent: the share of the perfect plummets from 79 % in the classical period to 40 % in the Imperial period, with the share of the imperfect subjunctive simultaneously reaching 36 %, but still remains somewhat higher.

In Old and Classical Latin the subjunctive is rare and achieves greater numbers only in the Augustan period (266). It is firstly purposive (so in (266)), but parallel to *dum* quickly undergoes desemanticization. A reflection of this development is the increase of the imperfect subjunctive from some 10 % in the Augustan period to some 36 % in the Imperial period; two authors in the corpus are primarily responsible for this, namely, Curtius and Tacitus ((267), (268)).

Table 13. Percentage values for *donec* in the corpus

	INDICATIVE					SUBJUNCTIVE		
	Pres.	Imperf.	Fut. 1	Perf.	Fut. 2	Pres.	Imperf.	Perf.
Old Latin			13.04	8.69	69.6	4.34		4.3
Classical	12.5		4.16	79.16		4.16		
Augustan	12.5	8.92	7.14	35.71	1.78	16.07	10.71	7.14
Imperial	0.65	1.97		40.13	0.65	19.73	36.18	0.65

(266) Liv. 4,59,8–9: *a cetera praeda Fabius militem abstinuit, donec collegae uenirent*
'Fabius kept the soldiers away from the remaining spoils until his associates arrived'

(267) Curt. 4,15,17: *trunci quoque et debiles quidam arma non omittebant, donec multo sanguine effuso exanimati procumberent*
'aimed and crippled though they were, some did not set aside their arms until they fell to the earth, dead from loss of blood'

(268) Tac. *ann.* 1,1,2: *temporibusque Augusti dicendis non defuere decora ingenia, donec gliscente adulatione deterrerentur*
'and there was no lack of magnificent talents for the recording of the era of Augustus, until these were driven off by the spread of sycophantism'

2. The – quantitatively limited – innovation of the semantic function SICOEX by analogy with *dum* results naturally with the takeover of the grammatical properties of *dum*: *donec* also appears beginning in the Augustan period in the imperfect indicative (cf. Table 13) and so can take over the aspectual opposition of *dum* 'so long as' and its pragmatic background/foreground function, see (269) (*donec* belongs to the description of a background situation in which a new event enters with *postquam*) versus (270) (*donec* closes a narrative sequence); in (271) the first strophe describes a state[168] with *donec eram* that is brought to an end with the foreground event *donec … non arsisti* of the second strophe (see Nisbet and Rudd 1984 *ad loc.*). The subjunctive, on the other hand, remains insignificant here as well until the beginning of Christian Latinity (*ThLL* 5, 2002,57–2003,23). The analogy with *dum* ceases to hold to the extent that *donec*-SICOEX does not evolve into the limiting conditional clause.

168. On the different tense in main clause and temporal clause see n. 164.

(269) Liv. 27,27,6–7: *non tamen omisere pugnam . . . , donec integri consules hortando . . . rem sustinebant; sed postquam uolneratos ambo consules . . . uidere, tum et ipsi . . . effugerunt*
'they did not, however, cease from fighting for as long as the consuls, as yet unharmed, supported the battle by their exhortations; but after they saw that both consuls had been hurt, they themselves then fled'

(270) Liv. 1,7,13: *inde institutum mansit donec Pinarium genus fuit, ne extis eorum sollemnium uescerentur*
'the tradition thence endured, for as long as the family of the Pinarii endured, that they not eat the organs of the sacrificial victims'

(271) Hor. *carm.* 3,9,1–8: *donec gratus eram tibi / . . . / . . . / Persarum uigui rege beatior / :: donec non alia magis / arsisti . . . / . . . / Romana uigui clarior Ilia*
'while I was in your favor, I was happier than the Persian king. :: While you burned with passion for no other, I lived in greater honor than the founding Mother of Rome'

6.1.2.3. Quoad. *Quoad* parallels *donec* to the extent that (a) the semantic function TAQUEM in Classical Latin in the preterite is expressed by the perfective aspect (perfect indicative) (see, e.g., (272)), and the initially semantically motivated subjunctive (see (273)) is desemanticized post-classically (274) and hence becomes a rival to the perfect indicative; (b) the semantic function SICOEX in the preterite shows the same pragmatically motivated opposition of the tenses as *donec* ((275) vs. (276)).

(272) Caes. *Gall.* 5,17,3–4: *nostri . . . neque finem sequendi fecerunt quoad . . . equites . . . praecipites hostes egerunt*
'our men did not stop the pursuit until the cavalry drove the enemy headlong'

(273) Cic. *epist.* 7,26,2: *ego hic cogito commorari quoad me reficiam*
'I plan to stay here until I feel renewed'

(274) Apul. *met.* 10,4,7: *sed iuuenis . . . execrabilem frustratur eius conspectum, quoad illa . . . nefarium amorem ad longe deterius transtulisset odium*
'but the youth avoided the hated meetings with his stepmother, until she transformed her execrable love into a hate worse by far'

(275) Cic. *Att.* 3,19,1: *quoad eius modi mihi a uobis litterae adferebantur ut aliquid ex iis esset exspectandum, … Thessalonicae retentus sum; postea quam …*
'as long as the letters that I received from you afforded me any ground for it, I remained in Thessalonika; but afterward … '

(276) Nep. *Pel.* 4,1: *hoc tam turbido tempore … Epaminondas, quoad cum ciuibus dimicatum est, domi quietus fuit*
'in these troubled times, Epaminondas stayed in repose at home for as long as the civil war continued'

The essential difference is the early, far-reaching extension into the semantic function SICOEX. It may be explained by the aforementioned fact that *quoad* is not a genuine temporal subordinator in Old Latin but develops out of an underlying local expression parallel in two directions, namely to a subordinator for degree clauses (see (253), (254)) and to one for TAQUEM clauses. In Classical Latin the degree function still retains a high frequency: in Cicero's correspondence there are 24 degree clauses out of 66 *quoad* examples in all (see, e.g., ((277)); in the corpus, 11 of the 25 *quoad* examples correspond to the formulaic degree clause type *quoad possum*. These degree clauses do not indicate an independent situation but limit the main clause predicate. Therefore they are commonly short and formulaic in character (*quoad potui*, *quoad uires ualent*, etc.). Now, what is cognitively central in the measure of a level, such as of an ability (*quoad potui*), is not the attainment of a specific terminus but the "extension" of the measured property, the position attained on a scale that is in principle open. The inherent telicity of the subordinator *quoad* is thus here overridden by the semantic function of the degree clause. In SICOEX clauses with *quoad* like (278), too, the aforementioned formulaic type is encountered in high frequency. In the corpus, all but two examples (one of which is (279)) are of the type *quoad uixit/uiuet*.

(277) Cic. *Att.* 3,23,5: *meum Ciceronem … tueare quoad poteris*
'protect my little boy as well as you can'

(278) Tac. *ann.* 4,61,1: *fine anni excessere insignes uiri … Q. Haterius, familia senatoria, eloquentiae quoad uixit celebratae*
'at the end of the year two distinguished men died; Q. Haterius, of a senatorial family, was a man of celebrated eloquence for as long as he lived'

(279) Tac. *ann.* 6,51,3: *egregium uita famaque quoad priuatus uel in imperiis sub Augusto fuit*
'his life was an extraordinary thing, and so too his fame, both while he was a private citizen and as an officeholder under Augustus'

This context permits the supposition that SICOEX clauses with *quoad* were formed on the basis of the nontemporal degree model. They are then at first nothing more than a semantic special case of this model and only later developed further to "normal" SICOEX clauses. It is therefore plausible that they appear earlier than the SICOEX clauses of *donec*, for which such a possibility of attachment does not exist.

6.2. *Terminus a quo*

– '*p* identifies a point or period of time in the (relative) past from which onwards *q* is true' (Kortmann 1997:84)

(280) Plaut. *Merc.* 388: *huc ut sum aduectus, animus mihi dolet*
'ever since I was brought here, I have felt unwell'

(281) Sall. *Catil.* 6,3: *sed postquam res eorum … satis prospera … uidebatur, … inuidia ex opulentia orta est*
'but after it became apparent that they were prospering, envy arose because of their affluence'

6.2.1. Semantics

TAQUO is a complex semantic function, namely (like TAQUEM) a combination of time location and time extent (see Haspelmath 1997: 40: a combination of "posterior-durative" and "distance past"). In contrast to all other temporal semantic functions, TAQUO specifies the left boundary of a situation. That is a function less often required than the specification of the right boundary of a situation, since the beginning of a situation is regularly implicit in its description (Mellet 2005: 347–348). Correspondingly, for the left situation boundary there is nothing corresponding to the grammaticalization of the

right situation boundary via perfective aspect.[169] Also, the expression of the semantic function TAQUO is less systematic than that of the other temporal semantic functions.

6.2.2. Expression formats

In Haspelmath's investigation of temporal noun phrases, there are cross-linguistically three important expression models for the semantic function TAQUO (1997: 132–139): (1) it is based on the expression of another semantic function, preferably SICOEX, see (282); (2) it is based on an existence construction, see (283); (3) it expresses the two functions from which it is combined compositely, see (284). In the first two models the extent of a situation is measured retrospectively from the moment of speaking, in the third from the beginning of the situation.

(282) a. *Stephen has lived in Hong Kong for five years*
b. *Stephan lebt jetzt fünf Jahre in Hongkong*

(283) *Il y a une heure que je t'attends*

(284) *Stephan lebt seit fünf Jahren in Hongkong*

If the *terminus a quo* takes the form of a clause, these three models are likewise found, albeit varied somewhat:

1. The existence model ((285)–(290)): It does not fall under the rubric "temporal adverbial clause", since the subordinate clause is here not an adverbial clause, but part of a cleft sentence, in which the expression of distance is focused through incorporation into an existence predication,[170] and also the extension of the main clause is not measured by the subordinate clause, but the other way round. The reference point from which the extent of the subordinate clause is measured by the main clause is, with the use of polysemous subordinators in the corpus, regularly the moment of speaking (see (286)–(289); emphasis on the moment of speaking with *hic* in (285)); use of the

169. The combination of stative *Aktionsart* and perfective aspect can signal ingressivity, but only in specific contexts, see Oldsjö (2001: 244–247).

170. On the semantics of this type and the classification of its subtypes see Lundström (1961: 22), H. Rosén (1989), and Declerk (1997: 16–17).

monosemous *ex quo* also provides nondeictic distance measure (290). Polysemous subordinators (*ut*, *cum*,[171] *quod*) are common in this model, since the TAQUO interpretation is guaranteed by the distance expression in the main clause.

(285) Plaut. *Stich.* 29–30: *nam uiri nostri domo ut abierunt, / hic tertius est annus*
'this is the third year that our men have been absent from home'

(286) Cic. *Phil.* 12,24: *uicesimus annus est cum omnes scelerati me unum petunt*
'it is the twentieth year since all those knaves made me their target'

(287) Apul. *met.* 1,24,5: *'mi Luci,' ait 'sat pol diu est quod interuisimus te, at hercules exinde cum a Clytio magistro digressi sumus'*
' "my Lucius," he said, "it has indeed been long enough since we last saw you – by god, it has been since we left Clytius' school" '

(288) Sen. *epist.* 76,1: *philosophum audio et quidem quintum iam diem habeo ex quo in scholam eo*
'I have been listening to a philosopher and it is already the fifth day since I entered his school'

(289) Tac. *ann.* 14,53,1: *quartus decimus annus est, ex quo spei tantae admotus sum; octauus, ut imperium obtines*
'it is the fourteenth year since I associated with your expectations, eight since you obtained the emperorship'

(290) Curt. 10,10,9: *septimus dies erat ex quo corpus regis iacebat in solio*
'it was the seventh day since the body of the king first lay in the casket'

2. When the *terminus a quo* is an adverbial clause, both of the aforementioned procedures are available: use of the expression model of another temporal semantic function, or a specific TAQUO model. These models are distinguished by their increasing level of specificity. Simplest is the use of

171. The Plautine examples of *cum* are collected by H. Rosén (1989); in Classical Latin it remains common only in Cicero's letters.

the model ANTE with the normal perfective aspect, which specifies the beginning of an atelic main clause situation (*odi*; *nihil accepimus*) via the completion of a telic subordinate clause situation (besides (280) above see (291) and (292)). This type is distinguished from normal ANTE clauses by the obligatory present time reference of the main clause. More specific is the model ANTE + imperfective aspect (see (281) above and (293), (294)), which measures the extension of the main clause from the beginning of the subordinate clause: the imperfective[172] temporal clause is coextensive with the main clause. The time reference of the main clause is, unlike in the aforementioned "anterior model," free. Most specific is the use of a special subordinator, namely *ex quo* as in (295), which arose post-classically. It is based on a spatial model, the separative (Section 3.2.2.3), and therefore expresses the combination of starting point and extension with both its components. The same holds for the older separative relative construction (296), which continues alongside *ex quo*.

(291) Plaut. *Trin.* 600–601: *odi hanc domum, / postquam exturbauit hic nos ex nostris aedibus*
'I have hated this house ever since he drove us off from our own house'

(292) Cic. *Brut.* 19: *ut illos de re publica edidisti, nihil a te sane postea accepimus*
'since you published those books about the republic, we have received nothing more from you'

(293) Cic. *Att.* 2,11,1: *narro tibi, plane relegatus mihi uideor postea quam in Formiano sum*
'I tell you, I have felt completely banished since I have been at Formiae'

(294) Sall. *Catil.* 12,1: *postquam diuitiae honori esse coepere et eas gloria … sequebatur, hebescere uirtus … coepit*
'after riches began to be a source of honor, and after glory began to follow from it, bravery flagged'

172. So long as the ingressivity is not expressed lexically as in the case of *coepere* in (294).

(295) Sen. *epist.* 83,14: *L. Piso, urbis custos, ebrius, ex quo semel factus est, fuit. Maiorem noctis partem in conuiuio exigebat*
'L. Piso, the city superintendent, was drunk from the instant he was appointed. He used to spend the greater part of each night at banquets'

(296) Petron. 129,11: *ex qua hora iniuriam accepit, apud se non est*
'ever since she was slighted, she has not been herself'

3. *Ex quo* is the only TAQUO-subordinator that is not subject to any temporal or aspectual limitations. It occurs both with imperfective aspect, thus with measurement from the beginning of the subordinate clause situation, as in (288) and (290), and with perfective aspect, thus with measurement from the conclusion of the subordinate clause, as in (295). The time reference of the main clause is also free (preterital in (295), present in (296)). Since as a result of the temporal limitations mentioned above the nonspecialized subordinators do not cover all regions of the TAQUO spectrum, the creation of the special subordinator *ex quo* was amply motivated. However, at the same time its grammaticalization remains incomplete: as soon as it enters the "existence model" and a substantival time word with masculine or neuter gender is present there, as in (288)–(290),[173] *ex quo* remains automatically part of a relative construction whose nucleus is the just-named time word. But in the other patterns as well, it does not succeed against the relative construction, which appears in the corpus just as often and has the advantage that the nucleus remains semantically specifiable and the higher nominal can be used for focus formation (297).

(297) Sen. *benef.* 6,30,5: *nec intellexerunt … ex eo tempore ipsos nihil non aduersi expectare debuisse, ex quo nihil ueri audire potuerunt*
'nor did they understand that, from that moment when they were able to hear the truth no more, they ought to expect nothing but trouble'

This situation corresponds to what, according to Kortmann's findings (1997: 147), is typical of the semantic function TAQUO in the European languages: subordinators for TAQUO are typically monofunctional and not an

173. Type III in H. Rosén (1989: 209), see n. 170.

"ideal type" one-word subordinator; and typically the semantic function is either expressed by a regular relative construction with a time word as nucleus, or by adposition + relativizer/complementizer. Since on the other hand the old subordinators in the semantic function TAQUO at any time cover only partial areas, the finding stressed by Kortmann (1997: 146–148) for most European languages holds also for Latin, that TAQUO is the only semantic function for which no archetypal adverbial subordinator exists, and it thus has "peripheral" status.

7. Conclusion

The question still to be answered in summary is how the Latin temporal clauses fit into the typological array of the European languages, as it has been set forth by Kortmann (1997).

7.1. Network-external relations

As for network-external relations, it can be briefly and conclusively stated that Latin fully conforms to Kortmann's findings, namely that the time network is the goal of extensions from the locative and modal networks (*ubi* or *ut*), that it is itself the source of extensions into the CCC network, and that these extensions are unidirectional (see Kortmann 1997: 191–192 and the diagram ibid. 178). The most important extensions from the time network are (1) into CCC, in the first place SIOVER → CAUSE (*quoniam*, *quando*, *cum*; *postquam*), in narrower perimeter SICOEX → CONDITION (*dum*); (2) SIOVER → CONTING; (3) POST → PREFERENCE. The most important divergences from Kortmann's finding are the absence of the extension TAQUO → CAUSE and that CONTING does not function as an interim stage for the extension SIOVER → CONDITION;[174] the direct extension with *quando* is attested especially in Late Latin (Hofmann & Szantyr 1965: 608).

174. *Cum* is not used as a conditional, or *quando* as an iterative, to a great extent before Christian Latin (Hofmann & Szantyr 1965: 602, 607).

7.2. Temporal subordinators and network-internal relationships

The stock of adverbial subordinators is characterized, according to Kortmann (1997: 273–288), by 24 hierarchically ordered "Euroversals,"[175] the ones relevant for our purposes falling into four groups.

A. Predominance of one-word subordinators (E4; exception, Western Romania), which are syntactically and semantically monofunctional (E3). Among them the majority of the polymorphemic and multi-word subordinators are (semantically) monofunctional (E5.1/2).
B. Larger share of multifunctional monomorphemic or one-word subordinators than multifunctional polymorphemic or multiword subordinators (E6.1/2).
C. Existence of a primary monomorphemic subordinator for SIOVER (E9), and a primary subordinator for IMANTE (E12), SICOEX, ANTE, and POST (E13). If SICOEX is marked by a one-word subordinator, then so are SIDUR and SIOVER[176] (E25).
D. The probability hierarchy of the marking of the semantic function by monomorphemic subordinators is SIOVER → SIDUR → IMANTE → ANTE/POST (E22).

While groups B and C of "Euroversals" fully apply to Latin, and D with the proviso that the hierarchy of monomorphemic marking does not extend all the way to POST, this is so only to a highly limited degree for the statements of monofunctionality in A. For among the polymorphemic and optionally discontinuous temporal subordinators, the majority (*quando*, *quoniam*, *quoad*, *quamdiu*, *postquam*) are multifunctional. If such subordinators are monosemous, the clauses introduced by them have (with the exception of *simulac*, which is the result of a conventional implicature, see Section 3.2.2) peculiar semantic properties, namely the nonpresuppositionality of the POST clauses in the case of *prius-/antequam,* the indefinite-plural time reference of the CONTING clauses in the case of *quotiens,* and the focus on the left boundary of the situation in the case of *ex quo.*

175. Labelled E*n* below.
176. The two are combined in this work under SIOVER, see Section 2.

1. Characteristic of Latin is the large number and high frequency of polysemous temporal subordinators, which illustrate the connection between age, morphological, and cognitive complexity formulated by Kortmann's "inverse relation hypothesis" (Section 3.1). The highest level of polysemy is found in the old momomorphemic subordinators *ut* (4 semantic functions), *ubi*, *cum*, and *dum* (classically, 3 semantic functions each), whose global basic function is time location or time extent and which cover the two continua SIOVER → ANTE or SIOVER → TAQUEM. In this scenario *dum* exerts a pivotal function, which, although it is a subordinator for time extent, covers a special case of SIOVER, inclusion of the main clause in the temporal clause, and thus belongs to both continua. Of these subordinators, the last three named (*ubi, cum, dum*) have high frequency from Old Latin through the beginning of Late Latin (criterion of time stability, see Section 3.2.1.3). For three other old and polysemous subordinators this does not hold, namely (a) *quoniam*, which in Old Latin is already found in transition to causal subordinator; (b) *ut*, which after Old Latin because of its functional overload[177] largely succumbs to the competition from *cum* (Hofmann & Szantyr 1965: 636); and (c) *quando*, for which the same holds in Classical Latin but which in Late Latin returns renewed as a rival to indicative *cum* (Section 4.3). But the loss of these subordinators is characteristically compensated for by the expansion of another simple polysemous subordinator, *cum* (*cum historicum*). Conversely, a noticeable trend toward lexical specialization of the temporal subordinators does not appear until the beginning of Late Latin. On the contrary, four of the 13 subordinators listed in Table 1, which in Old Latin are still monofunctional or weakly polyfunctional, expand, from Classical Latin on, into adjacent semantic functions, and in fact, as the example of *quamdiu* shows, despite/regardless of the level of their morphological complexity: *cum* (SIOVER/IMANTE → ANTE), *donec/quoad* (TAQUEM → SICOEX), *quamdiu* (SICOEX → TAQUEM). Finally, *dum* extends in Late Latin on the basis of its aforementioned pivot function into the SIOVER/ANTE continuum, becoming a general subordinator for time extent and time location functions.

177. *Ut* originally belongs to all four adverbial networks (local, modal, temporal, CCC), while *cum* and *dum* are confined to TIME and CCC. That could explain why *ut* in its turn tends to become limited to MODAL (indicative) and CCC (subjunctive).

2. Thus the preferred means of distinguishing between semantic functions are not lexical but grammatical, namely, (1) the *Aktionsart* (see Section 6.1.2 on *dum*), (2) the aspect inherited from Proto-Indo-European (in *ubi*, *ut*; *postquam*, *donec*), (3) Latin-internal developments of the relative tense (CONTING vs. SIOVER, ANTE vs. temporal distance) and the *consecutio temporum* (classical SIOVER vs. ANTE for *cum*, post-classical SIOVER/TAQUEM vs. SICOEX for *dum*). (4) In the extreme case, as seen in Section 4, the lexical polysemy of the subordinator can only be overcome by the pragmatic knowledge of the hearer.

3. Latin has this high level of polysemy in common with the other Old Indo-European languages in Kortmann's corpus, namely Greek, Gothic, Old/Middle English. "Index fossils" of polysemy here are the two polysemy patterns SICOEX/TAQUEM and ANTE/TAQUO. Since the latter occurs in only 3 of the 49 modern languages investigated by Kortmann (see 1997: 185), it is a clear indication of the characterization of a language as lexically underdifferentiated in the area of subordination.[178] This state of lexical underdifferentiation ends only with the permeation of a new formation type, whose roots are already found in Old Latin but which only becomes productive in Late Latin and laid the foundation for Romance subordination techniques, namely "modifier + semantically empty subordinator *quod*" (Section 3.4).

4. A special case, limited to Classical Latin, remains the use of the *consecutio temporum* with *cum* to signal the pragmatic function of background (*cum historicum*). But this development leads to a dead end, on the one hand because the *cum historicum* has lost the semantic opposition component, the indicative *cum relativum*, whose duties it has to assume, and on the other hand because in the wake of the continuing desemanticization of the subjunctive in other temporal clauses (CONTING, TAQUEM, and POST), it ends up where the *consecutio temporum* is grammaticalized into a deranking signal, a means of expression of subordinate clause syntax. In the Romance languages, correspondingly, with the loss of *cum* the subjunctive in SIOVER and ANTE clauses is given up again and is only retained where it has an original modal function, from which it was generalizable, namely in the semantic functions TAQUEM

178. Lexical poverty is also a characteristic of Latin elsewhere, as established already by Lucretius's well-known dictum (1,803; 3,260) of the *patrii sermonis egestas*.

and POST. This development is already seen in Late Latin, namely in the ensuing revitalization of *quando* at the expense of *cum*, which retains the indicative throughout (Hofmann & Szantyr 1965: 607).

Translated from German by Peter T. Daniels

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Eusebia Tarriño

Comparative clauses

1. Introduction

Comparison is a basic cognitive operation by which we judge the similarity between two elements or situations and establish their equality or inequality.[1] Across languages there are many ways to express comparison: it can be grammaticalized by case marking, particles, and so on in specific comparative constructions; or it can be lexicalized by certain verbs which mean 'surpass', 'exceed' (*superare*) or even the opposite (*cedere* 'to be inferior to'). It may also be expressed by conjoined clauses.[2] In Latin, comparison is mainly expressed grammatically, by means of at least two types of comparative construction (1)–(2). Type (1), or "comparative clauses of Degree", focuses on the notion of quantity or degree: that is, the extent to which some property or state of affairs applies to an entity with respect to some standard. Type (2), or "comparative clauses of Manner", compares quality or manner: that is, the way in which the main and subordinate states of affairs take place.[3]

(1) Cic. *Pis*. 26: *tu eruditior quam Piso*
'you are more learned than Piso'

1. Cf. Langacker (1987: 99), Ramos Guerreira (2002), Cuzzolin (this volume).
2. Stassen (1985: 39) identifies six common types of comparatives. All of them are ways of expressing comparative meaning, but they are not comparative constructions in the same sense (Crookston 1994: 627; Cuzzolin and Lehmann 2004). For example, in conjoined clauses the relation of comparison is not directly expressed, but rather inferred from the adversative coordination (Cristofaro 2003: 46).
3. Jensen (1934: 108) establishes the two basic types of comparison: quality and quantity. To be valid for both types, a definition must be very general, e.g. that of Biraud (1983: 167): "A comparative statement is formed by bringing into relation two propositions that have at least one element in common, on the basis of which a likeness or unlikeness is affirmed". Stassen's definition (1985: 24), which we shall use later, is appropriate for the comparison of inequality.

(2) Cic. *de orat.* 2,161: *ut sementem feceris, ita metes*
'as you sow, so shall you reap'

As regards type (1), there is also a series of verbs with a comparative meaning (*supero*, *antecedo* 'excel, surpass in', *cedo* 'to be inferior to', etc.) which form the much less developed lexical expression of comparison (Asensio 2001, 2002):

(3) Plaut. *Aul.* 494: *muli, pretio qui superant equos …*
'mules, which surpass horses in price … '

In crosslinguistic studies comparative constructions of type (1) are called properly "comparatives" (Stassen 1985, Crookston 1994, Cuzzolin and Lehmann 2004), whereas those of type (2) are called "clauses of Manner" (Thompson and Longacre 1985: 177, Kortmann 1997: 79; 1998a: 467, sometimes "pseudo-comparatives", Gutiérrez Ordóñez 1994b: 11). In Latin grammars both type (1) and (2) are studied as comparatives, but differentiated in the two groups, according to their semantic content and morphological characterization. Type (3) is usually overlooked as a comparative construction but included within the ablative of respect (Kühner 1912, 1: 392; Ernout & Thomas 1953: 95, 354; Bassols 1956 II: 293, 303; Woodcock 1959: 38, 207).

The exposition is organized in two sections, Comparative clauses of Degree (Section 2) and Comparative clauses of Manner (Section 3). In each section, we define the respective type; analyze its elements, giving special attention to the particles that introduce them; and comment on the syntactic, semantic and pragmatic status of the subordinate clauses. Section 2 includes also lexical comparison (Section 2.5) and pseudo-comparatives (Section 2.6).

2. Comparative clauses of Degree

2.1. Definition and constituent parts

For the notion "comparative construction", Stassen (1985: 24) proposes the following semantic-functional definition, which may be applied to the Latin comparative clause of Degree: "A construction in a natural language counts

as a comparative construction … if that construction has the semantic function of assigning a graded (i.e. non-identical) position on a predicative scale to two (possibly complex) objects". Stassen's definition establishes an opposition between comparison of equality (when the position of the objects compared on the predicative scale is the same) and inequality, on which his study is focused. In contrast with this binary opposition between comparison of equality and inequality, it is more frequent to establish a tripartition between equality, superiority, and inferiority, which will be followed here.[4]

The elements that form a comparative construction are at least three:[5] the parameter or predicate, which represents the property – capable of admitting degrees – on which the comparison is established; and the two entities compared, the first term or comparee and the second term of the comparison. The latter is the standard known by the interlocutors, which serves as a yardstick or reference point for situating the term compared on the predicative scale, either in the same position or in a different, higher or lower, one.

In the linguistic encoding of the comparison, other elements also intervene, which act as markers: on the one hand, the degree or parameter marker (in Latin these can be suffixes, of the type *-ior*, or particles such as *magis*, *minus*, *tam*), and on the other hand, the standard marker (i.e., the particle *quam* or the ablative case). Thus a comparative construction can be broken down into the following elements:

1. Comparee or topic of comparison
2. Degree/parameter marker
3. Parameter or predicate
4. Standard marker or pivot

4. On the two options, see Rivara (1990: 15) and Bertocchi and Orlandini (1996: 196). Heine (1997: 109) points out the disagreement among authors concerning what a comparative construction is, and the possibility of also including the positive and superlative degrees.
5. Cf. Heine (1997: 110), Haspelmath and Buchholz (1998: 279), Cuzzolin and Lehmann (2004).

5. Standard of comparison

ego	*tam*	*seruos sum*	*quam*	*tu*
1	2	3	4	5
tu		*erudit-ior*	*quam*	*Piso*
1		3–2	4	5

2.2. The comparee and the comparative predicate

As regards the comparee, any of the constituent parts of the sentence can be the first term of a comparison; for example, the comparee in (1) is the Subject *tu*, and a Complement in the dative in (4).

(4) Nep. *Alc*. 11,3: *omnes enim Boeotii magis firmitati corporis quam ingenii acumini inseruiunt*
'all the Boeotians cultivate bodily strength more than mental power'

Less frequently, the elements compared are several; that is, the comparee may be multiple, as in (5) *bona / mala, accipere / perpeti*. The parameter or comparative predicate is the term intensified by the degree marker. The property of grading is not linked to a certain class of words, but rather depends on the semantics of the terms (Sapir [1944] 1951: 123; Torrego 2002: 256). Although adjectives prototypically undergo gradation,[6] the parameter can also be an adverb, a verb as in (4) *inseruiunt*; or a substantive as in (3) *pretio* (a lexical comparison in this case). It is even possible to compare complex elements, such as subordinates, e.g. (6). In the latter cases it is not possible to use suffixes as degree markers, but only particles (cf. Section 2.4).

(5) Sall. *Iug*. 102,8: *profecto ex populo Romano ad hoc tempus multo plura bona accepisses, quam mala perpessus es*
'for then you would assuredly, before this time, have received from the Roman people more benefits than you have now suffered evils'

6. However, not all adjectives admit grading: on non-gradable or determinative adjectives (type *Romanus*) see Fugier (1983: 237), Kircher-Durand (1996: 223), and Cuzzolin (this volume).

(6) Liv. 9,9,3: *id istos magis ne dedantur quam quia ita se res habeat dicere*
‘these men are saying this, not because it represents the fact but to prevent their being surrendered’

So far we have seen the different types of elements that can be the object of comparison. This can be established (i) between two entities with respect to a parameter, as in (1), (3), (4), etc.; (ii) between two aspects of the property expressed in the predicate, as in (7) *nuda* / *purpurata* / *pulchrior*; or finally (iii) the comparison can be made concerning one entity with respect to two predicative scales (8). That is, the comparative predicate can be twofold: instead of comparing two entities with respect to a property, it is possible to compare one single entity (*Celer*) with respect to two properties (*disertus* / *sapiens*). In this case, one of these properties is used as a standard with respect to the other. When the two properties compared are expressed by adjectives, in Latin there are two possible formulations: either only the first predicate appears intensified with the particle *magis*, whereas the second is in positive degree, as in (8), or else both predicates appear in the comparative degree, a construction that is more frequent from Livy on (9) (Kühner & Stegmann 1914: 473). This second formulation is for some authors an illogical attraction (Woodcock 1959: 207), whereas for others (Suárez Martínez 2002: 239) it is proof of the coordinating value of *quam*, which in (8) also joins two intensified elements; that is, they are equally affected by the comparative particle *magis*. It is possible that the search for a formal parallelism may also be a factor that explains the existence of formulations such as those in (9): in this way the identification of the two elements on which the comparison is based is much easier (Sánchez Salor 1984: 47).

(7) Plaut. *Most.* 289: *pulchra mulier nuda erit quam purpurata pulchrior*
‘a beautiful woman will be more beautiful naked than dressed in purple’

(8) Cic. *Att.* 10,1,4: *Celer tuus disertus magis est quam sapiens*
‘your friend Celer is a man of learning rather than of good sense’

(9) Liv. 27,48,7: *longior quam latior acies erat*
‘his formation was greater in depth than length’

For their part, Bertocchi and Orlandini (1996: 219) explain the two possible formulations taking as a basis the comparative or corrective interpretation of the expression: (i) when both qualities are presupposed in the comparee, but to a different degree, the intensive suffix *–ior* is used in both adjectives, as in (9), in which the column has the two properties of length and width, although one to a lesser extent than the other; (ii) however, when the construction expresses a relation of exclusion or alternation, not a true comparison of degree, in Latin the analytic construction *magis / potius … quam* is used, as in (8), (10), and (11). In these cases, only the existence of the first quality is recognized, and that of the second is denied. The validity of Bertocchi and Orlandini's explanation may be limited by the existence of purely morphological factors that affect the synthetic or analytic formation of the comparative degree of adjectives (cf. Cuzzolin, this volume) and by the ambiguity of many examples.[7] Indeed, the boundary between the comparative interpretation and the exclusion interpretation is quite often diffuse, whether the parameters compared are adjectives or some other type: it is easy to pass from comparing the intensity of two properties to comparing the property of the term chosen to express them. We return to these substitutive or pseudo-comparative structures in Section 2.6.

(10) Cic. *Cato* 26: *iucundum potius quam odiosum*
'agreeable rather than hateful'

(11) Sall. *Iug*. 20,2: *metuens magis quam metuendus*
'fearing rather than to be feared'

2.3. The standard

The standard may be a simple phrase or, less often, may present an explicit verb. In this case the comparative is usually considered a subordinate (or coordinate, cf. Section 2.7) clause. When the standard appears in the ablative case, as in (12), or as a prepositional phrase (introduced by *prae*, *praeter*,

7. According to Riemann (1888, 1908: 17), both the correlation *magis … quam* and *-ior quam -ior* can be synonymous with *potius … quam*, especially in Livy.

ante, etc.)[8] and when the comparison is expressed by a specific verb, not by a syntactic construction,[9] there are not complex sentences in the usual sense of the term. Consider the difference between (12) and (13). Although the state of affairs described may be similar, in one case this content has been formulated using a nominal element (*opinione*), in the other by a clause (*quam opinabar*).

(12) Plaut. *Mil.* 1238: *istuc curaui, ut* ***opinione*** *illius pulchrior sis*
'I've taken care of this, that you shall be fairer than his expectations'

(13) Fronto 1,3,12: *ualeo re uera multo* ***quam opinabar*** *commodius*
'actually I feel much better than I thought'

Comparative clauses in which the standard is introduced by *quam* can present a more or less complete syntactic structure. In Latin grammars, syntagmatic comparatives, those without a verb, such as (1) *quam Piso*, are usually considered "verkürzte Vergleichungssätze" 'abbreviated comparative clauses' (Kühner & Stegmann 1914: 2, 452; Scherer 1975: 268). According to a principle of linguistic economy, of general application in complex sentences, when two propositions that are joined share elements in their meaning, the linguistic representation of these common elements only appears in the main clause and is eliminated from the subordinate proposition (Lehmann 1988: 204). Catalysis or the possibility of restoring the elements omitted is the argument that makes it possible to defend the clause nature of syntagmatic comparatives. Against this opinion, other authors maintain that in some cases such catalysis is not possible and therefore the comparative structure is not always that of a clause.[10]

One characteristic of the syntagmatic standard is its functional parallelism with the comparee, as in (1) *tu / Piso*; (4) *firmitati / acumini*; (7) *nuda / purpurata*, and so on. The iso-functionality of the standard is only necessary

8. E.g. Verg. *Aen.* 9,293: *ante omnis pulcher Iulus* 'Iulo, handsome above all'. It is, however, doubtful whether such prepositional phrases are really the standard, cf. Torrego (2002: 267).

9. That is, the so-called "exceed comparative", of the type *Marcus Titum doctrina superat*, cf. Andersen (1980: 230), Stassen (1985: 42, 159), Asensio (2002: 11), Cuzzolin and Lehmann (2004: 6).

10. Touratier (1994: 641) rejects the clause nature of syntagmatic comparatives owing to the possibility of the second term introduced by *quam* alternating with an ablative in comparisons of superiority, "since the ablative cannot be considered a mark of subordination".

when the verb of the comparative is lacking: this is suppressed since it is common, and with respect to it the standard carries out the same function as the comparee in the first segment of the comparison. On the other hand, when the second member is a complete clause structure, the verbal predicate does not usually coincide and the standard performs, with respect to it, a function which need not be the same as that of the comparee in the main clause (Hernández Cabrera 2002: 110). In (14), the standard *illa* acts as subject of the verb *fuit*, whereas the comparee (understood *uxorem*) is the object of *inuenies*.

(14) Plaut. *Stich.* 109: *facile inuenies peiorem … quam illa fuit*
'you'll easily find [a wife] worse … than she was'

The standard with the verb expressed is less frequent than the syntagmatic standard, but it is not at all a sporadic phenomenon.[11] The circumstances and causes for which an explicit verb appears in comparative clauses of Degree are, to sum up, the following (Baños 1998, 2002).

When the same verbal lexeme appears in the two members of the comparison, its expression in the comparative is usually due to the existence of variations in the verbal categories of time, mood, or voice ((15)–(16)). Mood can be expressed in Latin morphologically or lexically, by means of certain abstract or modal verbs, such as *uolo*, *dico, credo, uideor, possum*, and so on. With these the speaker can give nuances to the degree of commitment to the truth of the statement, the same as with the indicative/subjunctive opposition. Hence, the presence of one of these verbs in the comparative should also be understood as a case of repetition of the same verbal lexeme, in a different mood, in both parts of the comparison (17). In fact there are parallel examples with the expressed verb shared, which support the need for restoration in the examples in which it does not figure (18). The opposition *erat/esse uis* in (18) is of modal type, similar to that expressed in (17) by the presence of the modal verb alone.

11. Baños (2002: 20 n. 1) found 43.4 % of comparatives with verb expressed in Plautus and 24.5 percent in Caesar, *De bello Gallico*.

(15) Sall. *Catil.* 25,4: *lubido sic adcensa ut saepius* ***peteret*** *uiros quam* ***peteretur***
'her desires were so ardent that she more often made advances to the other sex than waited for solicitation'

(16) Cic. *Att*. 2,13,2: *neminem adhuc offendi qui haec tam lente quam ego* ***fero ferret***
'I have met no one here who takes the present state of things as quietly as I do'

(17) Cic. *Cael*. 58: *si enim tam familiaris erat mulieris quam uos uoltis*
'for if he was as intimate with the woman as you try to make him out'

(18) Cic. *Cael*. 53: *si tam familiaris erat Clodiae quam tu esse uis*
'if he was as intimate with Clodia as you make him out to be'

As regards the variation of person, unlike the rest of the verbal categories, this does not justify the presence of the verb in the comparative clause, since the person now appears indicated in the personal pronoun and it would be excessive to mark it also in the verb. When the verb is expressed, this is because of a desire for insistence (19). This same emphasis is what explains the presence of the verb in the comparative clause when no changes have occurred in the verbal categories previously indicated (20). In short, when the verb repeated is the same one that appeared in the first part of the comparison, the reasons that justify its presence are of a semantic nature, namely, the existence of variations in mood, voice, tense, and so on, or of a pragmatic nature, such as with a view to emphasis or intensification.

(19) Plaut. *Bacch*. 630–631: *mortuos pluris pretist / quam ego sum*
'a dead man is of more value than I am'

(20) Cic. *Verr*. II 4,126: *tam beati quam iste est non sumus*
'we are not as happy as that man'

Moreover, there are also cases, although rare, in which the verbal predicates are lexically different ((21)–(22)). In this respect Baños (1998: 26, 2002: 49) observes that the verbs that appear in both parts of the comparison must belong to the same semantic field – *doleo, maereo* in (21) – or share semantic traits – *morior* and *nascor* in (22) are antonyms – for the comparison to be

possible. There are no cases in which the comparison of degree is established between elements that do not share at least one aspect of their meaning.[12] This semantic restriction makes it possible to differentiate comparative clauses of Degree from other constructions in which this restriction does not exist, such as the pseudo-comparative construction of *potius quam* (cf. Section 2.6) or comparative clauses of Manner (cf. Section 3).

(21) Cic. *Phil*. 9,12: *ita adfectus ut nemo umquam unici fili mortem magis doluerit quam ille maeret patris*
'but he is in such distress, that no father ever grieved more over the loss of an only son than he grieves for the death of his father'

(22) Sen. *epist*. 22,16: *percepit sapientiam si quis tam securus moritur quam nascitur*
'a man has caught the message of wisdom, if he can die as free from care as he was at birth'

2.4. The degree marker and the standard marker

The degree marker and the standard marker form a correlation[13] in comparative clauses of Degree, both in equative ones and in those that express a comparison of inequality (superiority or inferiority). The particles used are shown in Table 1.

2.4.1. Comparatives of inequality: Superiority and inferiority

In comparisons of superiority, two procedures are possible to mark the degree (suffix or adverb), and two to express the standard (case or particle).

12. Hence the claim that "comparatives make it possible to place in parallel two processes that in themselves have nothing really comparable" (Touratier 1994: 651) is not valid for comparative clauses of Degree.
13. Here we use the term "correlation" in the broad sense to refer to any series of grammatical elements that usually appear together in a statement: *sic* … *ut*, *tum* … *cum*, *et* … *et*, etc. In Section 2.7 we shall see that correlation can also be understood as a particular type of clause-combining.

Table 1. Correlations used in comparative clauses of Degree

Type of comparative clause of Degree		Degree marker	Standard marker
1.	Superiority	*magis/plus/-ior . . .*	*quam*
2.	Inferiority	*minus . . .*	*quam*
3.	Equative	*tam . . .*	*quam*
		talis . . .	*qualis*
	– quantitative	*tantus . . .*	*quantus*
		tot . . .	*quot*
	– proportional	*quo magis/-ior . . .*	*eo magis/-ior*
		quanto magis/-ior . . .	*tanto magis/-ior*
	– likeness	*idem, aequus, par . . .*	*atque / ac*
		idem . . .	*qui*

As regards the various possibilities of the degree marker, the suffix *-ior/ -ius* seems to have had an intensive value originally. The expression presented an intensified quality with relation to the natural norm (intensive comparative) and then it came to be understood as a comparison with a norm "by position", derived from the context (Benveniste 1948: 122; Bertocchi and Orlandini 1996: 209). In Archaic Latin the synthetic expression of the comparison of superiority still prevailed,[14] but as time went by, the analytic form, adverb (*magis/plus*) + adjective, tended to replace it.

Of the two adverbs *magis* and *plus*, the former is the main marker, used with verbs, adjectives, and adverbs. As regards the latter, *plus* was an adjective in origin, and as such can appear in nominal phrases or substantivized and with a partitive genitive depending on it (23). Lexicalized as a comparative particle, it is normally used with numerical expressions (*plus tribus annis* 'more than three years') and with certain verbs (*posse, ualere, amare, credere, proficere*, etc.; Kühner 1912: 1,461). This became more frequent from the second century CE onward and gave rise to the French *plus* and Italian *più* (Scherer 1975: 56).

14. According to Arias Abellán (1987: 328), Plautus used the suffix *-ior* in over 80 % of the comparisons of superiority, and periphrases with *magis* or *plus* in the remaining 20 %.

(23) Nep. *Epam.* 5,3: *illi genti plus inest uirium quam ingenii*
'in that people is found more vigour of body than of mind'

As regards the standard marker, the two possibilities that exist in Latin, the ablative or *quam*, respond to two of the schemata of the crosslinguistic typology of comparative constructions established by Stassen.

The ablative is an example of the *Separative comparative* (Stassen 1985: 39,114; Crookston 1994: 626) or *Source schema* (Heine 1997: 115), perhaps the most widespread construction in the world, especially in languages with SOV word order.[15] In this type of comparative the standard is marked in the same case the language uses to express motion away.[16] Wölfflin (1889: 447) recognized already in the *Ablativus comparationis* the *Ablativus der Trennung oder des Ausgangspunktes* 'ablative of separation or starting-point', not the *Instrumentalis*. The standard is presented as the standpoint *from* which the comparison is made. For this reason, in later Latin, and sometimes also in classical authors, this original sense is expressed by means of the prepositions *ab* or *de* ((24)–(25); Kühner 1912: 1, 501). On the other hand, the construction with *quam* is an example of *Particle comparative* according to Stassen (1985: 45), a construction that is grammaticalized to the point of making the underlying cognitive schema unrecognizable. Heine (1997: 119) considers it a case of the *Similarity Schema*, a conceptual template really more suitable to the comparison of equality or equative comparison, from which it was extended to the comparison of inequality. Historical grammar supports Heine's opinion: according to Skutsch (1914: 321), in Latin an extension process similar to that which he detected in colloquial German took place: *A ist grösser* ***wie*** *B* instead of ***als*** *B*. Also for Hofmann & Szantyr (1965: 109), "dieser Typus *hic doctior est quam ille* ist Kontamination von *hic est tam doctus quam ille* und *hic est doctior illo*".

(24) Plin. *nat.* 18,126: *alius usus praestantior ab iis non est*
'there is no other use more outstanding than these'

15. The *Source schema* is rare in present-day European languages but quite frequent in Asian languages (Heine 1997: 128).
16. From a cognitive point of view, the grammatical structures used in comparison, both in Latin and in other languages, respond to conceptual schemata taken from other fields, especially the spatial field (Heine 1997: 129; Ramos Guerreira 2002: 181).

(25) Greg. Tur. *Franc.* 5,41: *Leger fluuius maior ab anno superiore fuit, postquam ei Cares torrens adiunxit*
'the river Loire was higher than last year, because its tributary Cher had joined it'

It is unusual for these two schemata (separative/particle) to be used simultaneously. Moreover, the languages that share the two types seem to have passed historically from the first to the second: thus Latin passed from the ablative to the construction with *quam*.[17] Indeed, the strictly Classical procedure that does not present restrictions is that of the particle, whereas the ablative is of limited use and can be considered to be nearing extinction (Ramos Guerreira 2002: 183; Torrego 2002: 259).

According to Benveniste (1948: 128), there is also a difference in meaning between the ablative and *quam* standards. The ablative standard presents a prototypical entity in which the property concerned exists naturally. Hence, the ablative is the regular formulation in intensive or elative comparison, of the type *melle dulci dulcior*. On the other hand, the *quam* standard has an adversative and implicit negative value: whereas the ablative case presupposes the property in the standard, *quam* does not presuppose it: that is, *filius altior est quam pater* implies *filius altus est, non pater* (Torrego 2002: 262).

With respect to the comparison of inferiority, it is only expressed analytically, with *minus … quam* (26).[18] This is a much less frequent construction than that of superiority. Arias Abellán (1987: 328) found a significant difference in Plautus: versus 97 % of comparisons of superiority, hardly 3 % of the total are examples of the structure with *minus … quam*. This is possibly due to the fact that inferiority can be expressed alternatively (in some languages

17. According to Wölfflin (1889: 447), the ablative is the oldest form as opposed to *quam*, and as an argument he cites the ancient grammarians who indicate the ablative as the regimen of the comparative and the construction with *quam* as the exception: Priscian 3,17 and Donatus *Art. Gram.* p. 375, 4: *comparatiuus ablatiuo adiungitur, interdum etiam nominatiuo, quando 'quam' aduerbium sequitur* 'the comparative is constructed with the ablative case, sometimes also with the nominative, when it follows the adverb *quam*'.
18. There is no language in which comparison of inferiority is expressed by means of morphology. Cuzzolin (2005) considers Latin graded forms with *sub-* (type *subtristis*) a possible morphological counterpart of comparative of superiority (type *tristior*), always in absolute construction, because a standard of comparison never occurs after the prefixed adjective. On lexical comparison of inferiority (Asensio 2001), cf. Section 2.5.

only in this way), whether by means of a comparative construction of superiority in which the lexical opposite of equivalent meaning appears (*minus bonus* = *peior*), or by means of the negation of the comparison of equality (*non tam ... quam*) (27). From a pragmatic or communicative point of view, (27) means: ‘She is *less* busy than you thought’.[19] Nevertheless, there are nuances of meaning (argumentative strength, degree of courtesy, etc.) which differentiate the comparison of inferiority of alternative expressions.

(26) Liv. 1,14,3: *eam rem minus aegre quam dignum erat tulisse Romulum ferunt*
‘Romulus is reported to have been less distressed at this incident than his position demanded’

(27) Cic. *nat. deor.* 3,93: *uidetis ergo non esse eam tam occupatam quam putabatis*
‘do you perceive therefore that she is not so occupied as you thought’

Concerning negation, we will add in passing that its presence not only transforms a comparison of equality into a comparison of inferiority, but a comparative structure, both of equality and of inequality, can be reinterpreted as equivalent to a superlative when it includes negative pronouns or adverbs (*nullus, nihil, numquam*, etc.) or certain quantifiers (28). In cases such as these, the comparison is no longer established between two independent entities with respect to a quality, but between one entity and all the rest that have this quality; hence the difference between the comparative, which contrasts two elements, and the superlative, which contrasts one element with a plurality, disappears (Bertocchi and Orlandini 1996: 215; Torrego 2002: 255).

(28) Cic. *Planc.* 57: *nihil est autem tam uolucre quam maledictum, nihil facilius emittitur, nihil citius excipitur, latius dissipatur*
‘but there is nothing which travels so fast as slander; nothing is more easily sent abroad, nothing is received more rapidly, nothing is spread more extensively’

19. This reveals the difference between mathematical equality – the negation of which can express both superiority and inferiority – and linguistic equality, which in case of negation is interpreted as inferiority, cf. Gutiérrez Ordóñez (1994a: 16); Bertocchi and Orlandini (1996: 200); Baños (1998: 31).

To end this section on the *degree marker* and the *standard marker*, we will point out that, although it is not frequent, there are examples of comparative structures in which there is no degree marker and only the standard introduced by *quam* is marked. There are examples from all periods, from Plautus to Late Latin, but most are from the imperial age, and especially from Tacitus. The lexical content allows them to be interpreted as comparisons of equality or superiority (or as pseudocomparatives, 'rather than', cf. Section 2.6), never of inferiority ((29)–(30)).[20] Typological studies reveal that in languages the element of a comparative structure that appears with the most consistency is the standard marker: for there to be a comparison, the second term or standard must be marked in one way or another. A marker of the first term and the degree of the adjective is not essential, and indeed some languages do not have this.[21] For example, in Italian the equative construction lacks a degree marker ((31); Haspelmath and Buchholz 1998: 279). From this perspective it is understandable that in Latin, where both parts are marked systematically, there may sporadically occur examples that lack the degree marker. The meaning and the presence of the standard suffice for the construction to be recognized as comparative.

(29) Plaut. *Rud.* 943: *non edepol piscis expeto quam tui sermonis sum indigens*
'by Pollux, I'm not wishing for fish so much as I am in need of your conversation'

(30) Tac. *ann.* 3,17,3: *miseratio quam inuidia augebatur*
'pity rather than anger was on the increase'

(31) *mia sorella è alta come me*
'my sister is as tall as I'

20. Kühner & Stegmann (1914: 463, Anm. 7); Fontana Elboj (1997: 86); Bertocchi and Orlandini (1996: 205), concerning Plaut. *Rud.* 1114: *tacita bonast mulier semper quam loquens* 'a woman is [more] good silent than speaking'. These examples usually pose problems of textual transmission.

21. Moreno Cabrera (1987: 22); Bisang (1998: 713) points out the lack of the parameter marker in equative constructions in languages from the Far East: only Chinese has parameter markers.

2.4.2. Comparative constructions of equality, or equative constructions

In most correlations, the degree marker that accompanies the term that is intensified in the main clause is an element of pronominal origin, from the root **to-*, whereas the standard marker, which introduces the comparative subordinate strictly speaking, is of relative origin, from the root **k^wo-*. The correlations are also characterized by phonetic parallelism:[22] *tam … quam*, etc., which seems to reflect iconically the equality of content expressed by equative constructions: the element compared has a certain property in the same measure as the standard or second term of the comparison.

The basic construction, marked by *tam … quam*, is formed by fossilized elements (Ramos Guerreira 2002: 187; Touratier 1994: 639). On the other hand, the standard markers still act as relatives in other correlations of equality that have a greater semantic load than mere comparison (Fontana Elboj 1997: 244; Touratier 1994: 642): *talis … qualis*, which indicates that the evaluation depends on an imprecise quality (32); and *tantus … quantus*, by which a size or uncountable amount is compared (33). In turn, when countable objects are compared and a numerical amount is indicated, the indeclinable *tot … quot* is used (34). From Augustus on, the frontier between notions of size and number becomes blurred, since *tantus/quantus* begins to be used in the plural to refer to countable objects (Prop. 1,5,10 *curarum milia quanta* 'how many thousands of cares'), and this causes *quantus* to invade the territory of *tot … quot* (Löfstedt 1911: 147; Fontana Elboj 1997: 245).

(32) Cic. *Lael.* 10: *moueor enim tali amico orbatus qualis, ut arbitror, nemo umquam erit*
'I do indeed feel my bereavement of such a friend as I do not imagine anyone ever will again'

(33) Cic. *Flacc.* 14: *Pompei autem auctoritas … tanta est quanta esse debet*
'the authority of Pompeius is great … as indeed it ought to be'

(34) Cic. *fin.* 1,15: *quot homines, tot sententiae*
'as many men, so many opinions'

22. This also occurs in many present-day European languages (and not only in those derived from Latin), cf. Haspelmath and Buchholz (1998: 287).

In Late Latin, this quantitative correlation was affected by the interference of the Comparative clause of Manner ((35)–(36)). It is possible that this type of construction, *tantus … (sic)ut*, may conceal a correlation *tantus … quomodo*, used in spoken language but banished from the written register, where no examples are found (Fontana Elboj 1997: 260).[23] Its existence, however, is vouched for by the result in Romance languages, in which *quomodo* replaces *quam* not only in the quantitative correlation but also in the basic equative one (Sp. *tanto/tan … como*; Catal. *tan … com*; Port. *tão … como*; etc.), in accordance with a general trend of expressions of manner to change into expressions of degree.[24]

(35) Greg. Tur. *Iul.* 8: *et diuisam in tantis ut erant partibus patenam …*
'after dividing the tray into as many pieces as they were …'

(36) Greg. Tur. *Franc.* 1,6: *cum tantis sicut perdederat filiis iocundatus est*
'he was blessed with as many children as he had lost'

Another variety of equative is proportional comparison, in which the degree of quality in the element compared varies according to the degree of quality in the standard. This is expressed by a correlation between adjectives in comparative degree: *quo magis/-ior … eo magis/-ior; quanto magis/-ior … tanto magis/-ior* ((37); Touratier 1994: 641; Fontana Elboj 1997: 248).

(37) Sall. *Iug.* 55,4: *ita quo clarior erat, eo magis anxius erat*
'and thus, the more renowned he became, the greater was his caution and circumspection'

Finally, a special type of comparison of equality must be pointed out, the comparison of likeness or unlikeness (Woodcock 1959: 206; *identité/*

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23. A computer search in the *Monumenta Germaniae Historica* gave no positive result. There are some examples in primitive documents in Romance: *tam in brauidum quomodo entiam indomindo* (León, 1061, *Crest. del esp. medieval* I, 12), quoted by Cano Aguilar (1995: 13).

24. Haspelmath and Buchholz (1998: 331 n. 10) found that equative degree markers originally expressed manner not only in Romance languages but also in some Slavic languages and in Georgian.

différence, Ernout & Thomas 1953: 358). It is characterized by the fact that the comparative predicate is limited to a series of adjectives or adverbs that denote likeness, similarity, or unlikeness (*aequus*, *par*, *dispar*; *similis*, *dissimilis*; *idem*, *alius*; *aeque*, *pariter*, *perinde*, *proinde*; *similiter*, *aliter*, *contra*, *iuxta*, *secus*, etc.) and by the use of the copulative conjunction *atque/ac* and less frequently *et/-que* as the standard marker, instead of *quam* ((38)–(39)). This is a construction proper to Archaic and Classical Latin, in decline since Livy and only preserved as a literary archaism. In origin it is a case of coordination, the comparative nature of which is secondary and comes exclusively from the lexemes involved. It was, however, reanalyzed as equivalent to the sentential comparison of equality expressed by *tam … quam*, and *atque* lost its coordinate value. By analogy with *tam … quam* formulae such as *aeque … quam/ut; alius … quam* arose, which replaced the construction with *atque* ((38)–(39); Fontana Elboj 1997: 153; Núñez 2002: 149).

(38) Plaut. *Mil.* 1251: *parem hic sapientiam habet ac formam*
'he has wisdom equal to his beauty'

(39) Lucil. 554: *aeque fruniscor ego ac tu*
'I enjoy it as much as you'

Related to the above, although the grammars do not include it under this heading but rather under the variants of relative comparatives (*qualis, quantus*, etc.), is a construction in which the comparative subordinate is a relative clause whose antecedent is characterized by an adjective that indicates equality (*idem*) (40)–(41). Unlike what occurs with the other equative correlations already analyzed, in which both elements have a specific comparative meaning, in the latter two constructions, those that express likeness, characterization depends essentially on the parameter marker, which contains the idea of equality. The standard marker, however, is an element lacking in intrinsic comparative value, whether it is a pure relative or another element, such as the coordination conjunction. Haspelmath and Bucholz (1998: 293) affirm the existence of equative constructions of this type in certain Scandinavian languages and in colloquial Spanish (42).

(40) Plaut. *Amph.* 447: *equidem certo idem sum qui semper fui*
'really, I surely am the same person that I always was'

(41) Nep. *Alc.* 5,3: *erat enim eodem quo Alcibiades sensu, populi potentiae non amicus et optimatium fautor*
'(Pisander,) with the same feelings as Alcibiades, was no friend to the power of the people, but a favorer of the aristocracy'

(42) *María es igual de alta que yo*
'Mary is as tall as I'

2.5. Lexical comparison

According to Stassen's definition, a sentence like (43) contains two comparative constructions. The main clause shows the regular syntactic construction (*uiliores* + ablative), and the relative clause has an example of the "exceed comparative" (*superant*), lexical comparison, or verbal type of comparison (Cuzzolin and Lehmann 2004: 6). The comparee is the Subject (*qui*), the standard is the Object (*equos*), and the parameter or comparative predicate is expressed by a noun (*pretio*). The exceed-verb (*superant*) lexicalizes the comparative relation: it is a marker of the comparison of superiority, whereas *cedere* expresses a comparison of inferiority, and *aequare*, a comparison of equality (Asensio 2001, 2002).

(43) Plaut. *Aul.* 494 : *faxim muli, pretio qui superant equos, / sient uiliores Gallicis cantheriis*
'I'd make it that mules, which exceed horses in price, be cheaper than Gallic geldings'

In Latin, comparative verbs are usually three-place predicates. Two predicate-frames are possible: the comparee is always the Subject of the verb but the standard can be the Object, if the verb is transitive (like *supero, anteeo*, etc.), or it can be a Complement in the dative with other verbs (like *praesto, praecello*, *cedo*, etc.). The third argument is an ablative of respect or limitation (Asensio 2002), sometimes very close to the ablative of cause. The limitation ablative refers to a property that the two compared elements possess: when this property is excluded in one of them, the ablative is interpreted as a cause complement.

Lexical comparison of inferiority is less frequent than that of superiority. Normally it is replaced by the passive, compare (44), or by the negation of superiority expressions.

(44) Nep. *Hann*. 10,4: *superabatur nauium multitudine*
'Hannibal was inferior in number of vessels'

2.6. Pseudo-comparative structures

Pseudocomparative structures are those that have the linguistic form of a comparison but express another meaning, generally a preference or a substitution. Both meanings can be encoded in Latin by the construction *potius quam* (Bertocchi and Orlandini 1996: 223; Baños 2002: 56) and also by other less frequent ones (*magis* ... *quam*; *citius* ... *quam*; *prius* ... *quam*). Let us review in detail the various possibilities.

(i) *Preference clauses* indicate that "of two alternatively possible events/activities *p* and *q*, *q* is preferred (by the generally volitional subject referents) and renders *p* unnecessary or improbable" (Kortmann 1998a: 468). In Latin this is expressed above all by the construction *potius quam*. Despite its formal similarity, it is not a comparison of degree: *potius* is not a degree marker, but rather an adverb in comparative degree (deriving from the adjective *potis*) which means 'preferably, rather',[25] and the conjunction *quam* does not introduce a standard but rather an alternative that is rejected. The meaning of the structure could be formalized as $[A \wedge \neg B]$. In this meaning *potius quam* is usually constructed with the subjunctive and its subject is animate ((45)–(46)). Unlike what occurred in the comparative clause of Degree, it is not necessary for there to be any coreferential element or semantic affinity between the parts of the alternative ((47); cf. Section 2.3). Preference can also be expressed by specific verbs, such as *malo* (< *magis uolo*), *praesto*, and others (48).

25. In the same way, English *rather than*, although historically it comes from a comparative (OE *hrathe* 'quickly') lacks synchronic connection with the comparatives (Thompson 1972: 240 n. 2). For Spanish, cf. Gutiérrez Ordóñez (1994b: 47).

(45) Cic. *Tusc.* 2,52: *qui perpessus est omnia potius quam conscios delendae tyrannidis indicaret*
'who suffered everything rather than betray his confederates in the design of putting an end to the tyranny'

(46) Ter. *Andr.* 797–798: *quae sese inhoneste optauit parere hic ditias / potius quam honeste in patria pauper uiueret*
'she preferred to come here and get rich dishonorably rather than to stay at home and be respectable and poor'

(47) Plaut. *Asin.* 816: *suspendam potius me, quam tu haec tacita auferas*
'I should hang myself, rather than you should carry off these matters undiscovered'

(48) Cic. *Phil.* 13,7: *pati uel difficillima malumus quam seruire*
'we prefer enduring the bitterest disaster to being slaves'

It is also possible to use other formulae such as the correlation *citius* ... *quam* (49). The form *citius* is the comparative of the adverb *cito* 'quickly', from the participle *citus* (of *cieo* 'move'), normally used as an adjective with the meaning 'quick' (opposed to *tardus*). In this context, however, it appears lexicalized to signify preference.

(49) Liv. 24,3,12: *morituros se adfirmabant citius quam immixti Bruttiis in alienos ritus mores legesque ... uerterentur*
'they said that they would sooner die than be mingled with Bruttians and change to alien ceremonies, customs, and laws'

Finally, the correlation *prius* ... *quam*, originally with a temporal meaning ('before'), is also used in this sense (50).[26] Both formulations are examples of *conceptual transfer* or extension from more specific meanings, whether an idea of speed in movement (*citius*) or an idea of time (*prius*), to a more abstract meaning (preference, exclusion). It is a very common cognitive

26. Cf. also Spanish *antes que* (Gutiérrez Ordóñez 1994b: 58) and English *before* (*death before dishonor*).

mechanism which gives rise to grammaticalization processes, "where a lexical unit assumes a grammatical function, or where a grammatical unit assumes a more grammatical function" (Ungerer and Schmid 1996: 255; Heine 1997: 7; Hopper and Traugott 2003: 184).

(50) Liv. 21,42,1: *Hannibal rebus prius quam uerbis adhortandos milites ratus*
'Hannibal thought that the courage of his men ought to be roused by deeds first rather than by words'

(ii) *Substitutive clauses* indicate that "of two alternatively possible events/activities *p* and *q*, *q* happens or is performed although *p* was rather to be expected" (Kortmann 1998a: 468).[27] *Substitutive constructions* can be considered "*counter-expectations markers*". They express the "moving out" of *p* and the "moving in" of *q*: this element *q* is often *unexpected*, while *p* represents the *expected* case. "This case can be expected due to social norms, to general encyclopaedic knowledge, or to the discourse context" (Schwenter and Traugott 1995: 260). In Latin, *potius quam* is used to express a substitution: *quam* introduces the replaced element. This time it is usually in the indicative (51).[28] This type of pseudocomparative has a corrective sense, since with it the speaker can modify a previous statement or a belief of the hearer, or else rule out an unsuitable formulation of the idea he wishes to express. As we saw in Section 2.2 concerning *magis … quam*, the comparative construction can also be used with a corrective meaning, as occurred in (11) *metuens magis quam metuendus*, or in example (52) of a negative equative construction. This negative formula shows an inversion of the usual order of the substitutive structure, since the element "moved out" (*p*) appears in the first position, *non tam artificiosa*, followed by the unexpected element (*q*), *quam superstitiosa*: whereas the normal order is "*q*, not *p*", in the negative

27. Cf. also Thompson and Longacre (1985: 199), Givón (2001, 2: 336). On substitutive complex prepositions (*instead of*, *in place of*, *in lieu of*), see Schwenter and Traugott (1995). For Spanish, see Gutiérrez Ordóñez (1994b: 47).
28. However, there are so many exceptions (Riemann 1888) that further research is required.

equative it is "not *p*, but *q*". This is a way of underlining or focusing on the new and unexpected information (Dik 1997: 330).

(51) Tac. *dial.* 2,2: *Aper omni eruditione imbutus contemnebat potius litteras quam nesciebat*
'Aper, who was imbued with learning of all kinds, pretended to despise the culture which he actually possessed'

(52) Cic. *div.* 2,76: *externa enim auguria, quae sunt non tam artificiosa quam superstitiosa, uideamus*
'let's examine foreign omens then, which are not so much technical as superstitious'

Given that this type of structure transmits information relating to the message as such, to its form in particular, we could consider that it has a pragmatic function: the speaker uses it to orient the reader concerning the presentation he is making of the facts, not concerning the representation of the facts themselves (according to the distinction established by Hengeveld, 1989: 128). It cannot be said, however, to be a disjunct (Dik et al. 1990: 35) embedded in the main clause (of the type "as I believe"), but rather the whole clause provides information relating to the statement and must be situated, as a block, on another level of the discourse. The main verb used in (52) *uideamus*, for example, is revealing – one of the typical resources of the speaker/writer to guide the reader through the information.

2.7. Syntactic, semantic, and pragmatic status of comparative clauses of Degree

In this section we consider what type of construction comparative clauses of Degree are from a syntactic point of view and what functions they perform in the sentence. We start from the fact that there are simple and complex comparative statements. The latter are where comparative clauses of Degree appear, since in them two verbal predicates are combined, although the one in the comparative may be elided. Traditionally, in Latin two types of complex construction are recognized, coordination and subordination. Comparative clauses of Degree have usually been included in the second group,

despite certain syntactic characteristics, in particular the iso-functionality of their elements with respect to the first part of the comparison,[29] and also despite the difficulty of ascribing comparative clauses of Degree to the adverbial subordinates, given their relationship with the adjectival syntagma rather than with the verbal predicate. Analyses based on dichotomies (coordination/subordination) do not always satisfactorily account for the linguistic facts since "much in language is a matter of degree" (Langacker 1987: 14). Hence, in the study of clause-combining there is a tendency to replace the former binary opposition with a continuum (Lehmann 1988; de la Villa 2001: 120; Cristofaro 2003: 22) in which at least three cluster points are established (Hopper and Traugott 2003: 177): parataxis or independence, hypotaxis or interdependency, and subordination or embedding. The characteristics of comparative clauses of Degree make it advisable to understand them as an example of the second type, hypotaxis or correlation.[30] In a hypotactic construction there is a main part or nucleus ("a clause that can stand alone") "and one or more clauses which cannot stand by themselves, and are therefore relatively dependent. However, they are typically not wholly included within any constituent of the nucleus" (Hopper and Traugott 2003: 177). Hence, the traits proper to subordination, as regards the degree of integration or the functions that they can carry out in the main clause, should not be sought in comparative clauses of Degree, nor should those of coordination, since there is greater dependence. Let us consider their characteristics.

29. Hence, Bennett (1910: 322) claims that "*Quam* is a coordinate conjunction and as such is properly followed by the same construction after it as before it". Cf. also Suárez Martínez (2002).

30. Hypotaxis in the meaning of Hopper and Traugott (2003: 177), which we use here, should not be confused with traditional hypotaxis, which was another way of referring to subordination by opposition to parataxis. We use the term "correlation" as a synonym; it is moreover polysemic, since it also serves to designate the series of particles that join the comparatives (cf. Section 2.4). Haudry (1973: 154) had already recognized correlation as a structure "à mi-chemin entre la parataxe et l'hypotaxe", represented in Latin by various types of subordinates ("subordonnées latines issues de la corrélation", 156), among others comparatives with *ut* and those with *quam*. De la Villa (2001: 125) also proposes for Greek considering correlative subordinates a case intermediate between coordination and subordination.

The two parts of the comparison are interdependent in that each requires the presence of the other for the comparative statement to exist. It is clear that the part introduced by the relative element (*quam*, *qualis*, *quantus*, etc.) requires the existence of a main clause, which in general has already appeared. According to Haudry (1973: 152), the oldest form of the correlative diptych has the relative element in first position (e.g., *quam magis … tam magis*), but then it underwent an inversion (*tam … quam*). Indeed, comparative clauses of Degree almost always appear in second place and imply the presence of the previous clause, which they explain and on which they are based.

More problematic is how necessary the second part is to the main clause. It is true that there are clauses in which only the first element of the correlation appears, and they are grammatical (53)–(54). However, either the reader retrieves the standard from the context (53), or interprets the clauses in an intensive or elative way (54), not as an ordinary comparison. Even in the case of "absolute comparison", so called despite the oxymoron (Bertocchi and Orlandini 1996: 208 n. 23), there is an implicit standard, the general norm. Thus, for a comparative statement to exist, there must be a second term in the comparison, whether a phrase or a clause.[31] Hence, the relationship of interdependence between the two members.

(53) Plaut. *Stich.* 108–109: *facile inuenies et peiorem et peius moratam, pater, / quam illa fuit:* ***meliorem*** *neque tu reperies neque sol uidet*
'you'll easily find, father, one both worse and of worse morals than she was; one better you'll neither find nor does the sun behold'

(54) Cic. *Tusc.* 4,47: *perturbatio est appetitus uehementior*
'a perturbation is a somewhat too vehement appetite'

A second aspect in which comparative clauses of Degree have a peculiar behavior deriving from having a hypotactic or correlative structure is their integration in the clause: the comparative is inserted where the correlative element is, whether in a noun phrase (*tam beati*) or in the verbal predicate (*tam*

31. On the other hand, Torrego (2002: 265) does not consider the standard an obligatory element. Neither for de la Villa (2001: 126) is the presence of the subordinate essential in correlative constructions in Greek, "precisely because of the existence of the correlative element that fills the structural section of the phrase".

seruit). Comparative clauses of Degree are not governed directly by the main predicate, but through the correlative: this is the element that really occupies a syntactic place in the main clause, and not the comparative clause of Degree, which remains apart and in parallel, like an expansion. It can thus be concluded that their degree of integration in the main clause is not as high as that of subordinate clauses, which do carry out by themselves a function in the main clause (as we shall see, this is the case of comparative clauses of Manner). This marginality of the comparative clause of Degree prevents us from being able to allot it a syntactic function in the main clause, to which it only belongs as an expansion, and not as an embedded structure.[32]

Finally, from a semantic point of view, the comparative clause of Degree gives content to the correlative when it lacks specific significance (*talis, tantus*) or specifies it when it already has the lexical content of the nominal (*tam beati*, *erudit-ior*) or verbal (*tam seruit*) element. In a certain sense its semantic contribution is similar to that of an apposition, since it serves to complete the identification of an element that forms part of the main clause (de la Villa 2001: 144). But this identification is made very specifically, by explaining the degree or extent to which this element has a certain quality or participates in a situation, by providing the reference point or standard that makes it possible to situate it on the assessment scale.

In short, the difficulty in deciding the syntactic and semantic function of comparative clauses of Degree lies in the fact that in the main clause they do not carry out any of the functions typified in the sentence: they are neither the Subject nor the Object, they do not act as Attribute with respect to a nominal nucleus, and neither can it be said that they act exactly like an adverb although they perform a modification related to degree, "and degree must be consid-

32. If from a syntactic point of view doubts may be harbored as to the type of integration and the function of the comparatives, the same does not occur from a cognitive point of view. Indeed, both comparative clauses of Degree and comparative clauses of Manner are subordinate according to the criteria taken from Langacker (1991: 435–437) and proposed by Cristofaro (2003: 29), namely, lack of an autonomous profile and non-assertiveness. In any comparative statement there is, in fact, a cognitive asymmetry between the two states of affairs that are joined, so that the comparative subordinate lacks cognitive prominence and is not pragmatically the asserted part, the part which the hearer is to be informed of, but rather contains supporting information to help to the hearer recognize the main or asserted information by relating it to some already acquired knowledge.

ered as a type of adverbial relation" (Haspelmath and Buchholz 1998: 280). That is, of the three usual types of subordinate clause, completive, relative, and adverbial (Thompson and Longacre 1985: 172), comparative clauses of Degree do not fit properly, without reservations, into any of them.[33] Rather, they would lie on the frontier between adverbial and adnominal, far from the prototypical constructions recognized in each category. This same difficulty is posed when analyzing their pragmatic function, since, given that they are not constructions integrated in the clause, it is not possible to situate them on any of its levels. Paradoxically, those constructions which with greater clarity seem to provide presentational information are not genuine comparative clauses of Degree, but rather substitution clauses (cf. Section 2.6).

3. Comparative clauses of Manner

3.1. Definition and constituent parts

Comparative clauses of Manner, or *similative* constructions, express the way in which the main action takes place (Kühner & Stegmann 1914: 448; Bassols 1956: 293). It is a structure closely related to equative constructions. For Ernout & Thomas (1953: 355), comparative clauses of Manner are a case of comparison of equality, which may refer to quantity (*tam … quam*) or quality (*ut*). While equative constructions are limited to signifying equal degree, comparative clauses of Manner or similative constructions indicate similarity in the broad sense: likeness of manner or quality. Similative constructions express a more complex notion, but they share part of their meaning with equa-

33. In fact, in Van der Auwera's work (1998) on adverbial constructions we find disagreements among the authors in the treatment of comparative structures: e.g., they would be excluded from adverbial subordination according to the criteria of Hengeveld (1998: 336), since they are a form of indirect subordination (specifically, appositional constructions); and Bisang (1998), in a study on adverbiality in languages of the Far East, devotes a section to comparative constructions (707) and another to adverbial subordination (730). On the other hand, Kortmann (1998a: 467) does include among the adverbial subordinators those that express proportion, a special type of comparison (in Latin, *quo magis … eo magis*, cf. Section 2.4.2); and Haspelmath and Buchholz (1998: 280) expressly defend the adverbial nature of comparative constructions.

tive constructions, the idea of equality; hence the two structures may show similarities in their formal appearance (Haspelmath and Buchholz 1998: 277, 313). In Latin, equatives and similatives indeed have a point of contact as regards their expression (*tam … quam/tamquam*), although both have other specific introductory particles. As regards the difference in meaning between comparison of degree and of manner, it can be noted well in (55) and (56) from Catullus. The similative construction in (56) *ut* does not express the intensity of affection, as *quantum* does in (55), but rather its quality: Catullus values his friends' presents *in the same way* that he values the friends, but not *as much* as he values them.

(55) Catull. 8,5: *amata nobis quantum amabitur nulla*
'loved by us as never a girl will ever be loved'

(56) Catull. 12,16–17: *haec amem necessest / ut Veraniolum meum et Fabullum*
'these I must love even as I do Veraniolus and Fabullus'

Below we shall see which elements of a comparative structure (cf. Section 2.1) appear in a comparative clause of Manner.

3.1.1. The comparee, the parameter, and the parameter marker

The comparee is not an entity but the situation expressed in the main clause; the way in which this situation is performed is the object of the comparison or parameter. In (57), what is compared is the way of dining; (58) compares how the same person receives and gives. As we can see in these examples, there is no degree/parameter marker in comparative clauses of Manner. This seems to be a general trend in languages (Haspelmath and Buchholz 1998: 314; Bisang 1998: 720). It is logical that degree is not marked, since it is not a matter of comparison of degree, but neither is there usually a mark of another kind that indicates the parameter or predicative scale – that is, how something occurs or is. Indeed, the parameter itself is not usually expressed. The comparative only indicates that the way of being or acting expressed in the main clause is the same as that of the subordinated state of affairs. After the co-reference between the two complements of manner has been established, the subordinate clause is integrated into the main clause to semantically define a manner

of being by means of the other already known manner of being (Biraud 1984: 167). If we do not know what this manner is in the standard, we will not understand the main clause either. That is, comparative clauses of Manner, like all comparative expressions, have a relative referential meaning (Gutiérrez Ordóñez 1994a:13). Thus, example (58) from Martial only acquires full meaning when we realize from the rest of the poem that the way of giving and receiving is purely virtual: the character in question never puts his offers into practice, hence the poet also makes him a series of presents in words only.

(57) Petron. 38,15: *solebat sic cenare quomodo rex*
'he used to dine like a king'

(58) Mart. 10,17,8: *accipe quomodo das*
'receive in the same way that you give'

Although it is not a parameter marker, in Latin it is possible to find an element in the main clause which announces or includes the comparative clauses of Manner. It is a semantically empty constituent part that refers to the subordinate construction. It may be an ablative phrase (*eo modo/pacto/ordine*, etc.), a deictic (*ita, sic*, *itidem*, etc.), or an adverb (*perinde, proinde, exinde*, etc.), but its presence is not obligatory.[34] Therefore it does not form, together with the conjunction that introduces the comparative clauses of Manner, a correlation such as those we have seen in the comparative clauses of Degree, although it is also usually called "correlative" ((59)–(60)). At times, the parameter of the comparison does become explicit with full content. It may be an apposition that specifies this manner, to prevent the concept of similarity from being excessively imprecise or ambiguous ((61)–(62)). Or it may become explicit through a nominal predicate (63). Despite the formal similarity with an equative construction (*tam … quam*), in (63) ways of being are compared and not dimensions: "X is evil like a serpent is evil". Hence the parameter (*bilinguis et scelestus*) does not have a degree marker, but rather the latter appears fused with the standard marker.

34. Some of these elements also appear in the correlations that introduce consecutive subordinates (*sic/ita … ut*), marked, moreover, by the use of the subjunctive, among other differentiating features, cf. Cabrillana (this volume).

(59) Plaut. *Amph.* 1144: *faciam ita ut iubes*
'I'll do as you command me'

(60) Plaut. *Cas.* 419: *faciam ut iubes*
'I'll do as you bid me'

(61) Cic. *nat. deor.* 1,59: *non igitur ille ut plerique, sed isto modo ut tu, distincte grauiter ornate*
'now he (Zeno) did not speak as most (Epicureans) do, but in the same way that you did, clearly, weightily, and elegantly'

(62) Apic. 5,3,3: *et accipies sepias minutas sic quomodo sunt cum atramento suo*
'and you take some little cuttlefish, just as they are, with their ink'

(63) Plaut. *Persa* 298: *tamquam proserpens bestiast bilinguis et scelestus*
'just like a crawling serpent he has got a double tongue, and he is a wicked one'

3.1.2. The standard and the standard marker

The only elements that habitually appear in comparative clauses of Manner are the standard and the standard marker. As occurred in the comparative clauses of Degree, the standard does not always formally constitute a clause with the verb expressed, but rather the comparative clauses of Manner can be reduced to a syntagma, cf. (57) above *quomodo rex*, when the rest of the elements are common. On the circumstances that make the appearance of the verb of the comparative necessary, cf. Section 2.3.

In some cases, the standard does not have a specific referent, but rather refers to a class of entities that society considers a prototype of that manner of being or acting. These are the so-called "generic similatives", constructions normally of an idiomatic nature, since they refer to the cultural heritage associated with each language (64). They have an intensive value deriving from the lexical content, rather than from the comparative construction itself, which may adopt the form not only of a comparative clause of Manner but also of a comparative clause of Degree ((65)–(66)). In general, this type of comparison is expressed by older and lighter grammatical structures, since they tend to fossilize. Especially frequent in Latin are generic comparisons

of superiority with the standard in the ablative (of the type *melle dulci dulcior*).[35] When they have the similative form, they are usually introduced by *tamquam*, and less frequently by *quasi* or *quomodo*, as in (57) above. Other examples (cf. Otto 1962, *passim*): Plaut. *Cas*. 92: *tamquam / quasi umbra sequi* 'to follow like a shadow'; Petron. 43,7: *niger tamquam coruus* 'hair black as a crow'; Petron. 43,8: *fortis tamquam Orcus* 'as brave as the devil'; Petron. 62,3: *calet tamquam furnus* 'as hot as hell'; Petron. 72,4: *pellucet quasi lanterna Punica* 'as transparent as a Punic lantern'; Plaut. *Aul*. 566: *inhiat quasi lupus esuriens* 'he opens his mouth like a hungry wolf'; Plaut. *Stich*. 605; and so on.

(64) Petron. 76,9: *quicquid tangebam, crescebat tamquam fauus*
'everything I touched grew like a honeycomb'

(65) Plaut. *Mil*. 984: *quae te tamquam oculos amet*
'A lady that loves you as her own eyes'

(66) Catull. 14,1: *ni te plus oculis meis amarem*
'if I did not love you more than my eyes'

As regards the standard marker, in many languages it is used for the similative construction just as in equative constructions, as in Spanish *se viste como su padre* 'he dresses like his father' / *es tan alto como su padre* 'he is as tall as his father'. On the other hand, in Latin *quam* is not used by itself, but there are several possibilities: this same marker, together with the degree marker in *tamquam*, the conjunctions *ut, sicut, uelut*, and, from the classical period on, the fossilized phrases *quemadmodum* and *quomodo*: the latter would come to be the only survivor in Romance languages.

The conjunctions that introduce comparative clauses of Manner derive from relative forms, which at first had an interrogative value.[36] Although they lack inflection, this origin is more or less transparent in their form. As we have

35. Cf. further examples in Wölfflin (1889: 448). On other languages, cf. Gutiérrez Ordóñez (1994a: 64), Haspelmath and Buchholz (1998: 309, 317).

36. The most frequent procedure for renewing conjunctions in Indo-European languages is to pass from the interrogative to the relative (Meillet [1915–1916] 1982: 166). In turn, both categories, interrogative and relative, are the main source of adverbial subordinators in Latin (Kortmann 1998b: 215).

said, they are usually, although not necessarily, accompanied by an anaphor or a demonstrative that announces or includes the syntactic role corresponding to the comparative structures in the main clause.

The conjunction *tamquam* – in Archaic Latin written both as one word and separated – comes from the fusion of the equative correlation *tam* ... *quam*, which came to be used in qualitative but not degree comparisons (Fontana Elboj 1997: 218). In some examples the lack of definition of the border between the two interpretations can still be perceived (67). The use of the equative marker reinforced with the correlative to introduce a similative construction also occurs in other languages (Dutch *zo* ... *als/zoals*; Yiddish *azoy* ... *vi/azoy vi*). According to Haspelmath and Buchholz (1998: 313), it is a means of compensating for the absent degree marker that helps to identify the construction. The form *tamquam* is used for syntagmatic comparison in all periods of Latin. It is frequent in generic comparatives (*tamquam fauus, tamquam furnus*, etc.). When *tamquam* is used in clause comparatives, it is used specifically for hypothetical comparisons and thus appears with the verb in the subjunctive (68).

(67) Plaut. *Trin.* 913: *uide modo ut hominem noueris :: tam quam me*
'see, now, how well you know this man. :: As well as my own self'

(68) Cic. *epist.* 12,9,1: *tamquam enim clausa sit Asia, sic nihil perfertur ad nos*
'for just as though Asia were under blockade, nothing reaches us'

Besides *tamquam*, there are several conjunctions that Latin assigned to introduce comparative clauses of Manner, from the polysemic *ut* to the more specific *quemadmodum* and *quomodo*. Among the reasons that explain the renovation of the conjunctions was the desire to increase their phonetic volume and expressiveness: the conjunctions that replace those worn out with use are usually morphologically more complex – that is, they are longer words, with more explicit meaning. The successive broadening of the repertory of comparative conjunctions in Latin responds to both principles established by Meillet (1982: 163): *ut* > *sicut, uelut* > *quemadmodum, quomodo*. It also responds to the trend to specialize the meaning of the conjunctions, from polysemy to monosemy (Kortmann 1998b: 215).

The particle *ut* is in origin a relative adverb of manner, which can be used with exclamatory-interrogatory value and also to introduce comparative subordinate constructions (Plaut. *Persa* 17: *ut uales*? :: *ut queo* 'how are you? :: as [well as] I can be'; cf. Rubio 1983: 301). Often a deictic (*ita, sic,* etc.) appears in the main clause to indicate the syntactic position that corresponds to the comparative structure in the predication. The oldest and most frequent correlation is *ita … ut*, but in Classical Latin *sic … ut* predominates.[37] From the fusion of the two conjunctions comes the reinforced form *sicut*, which in turn admits a corresponding particle in the main clause (69). Another reinforced form of *ut* is *uelut*, the result of the fusion of *ut* with the disjunctive conjunction *uel*. In Archaic Latin it is primarily used to introduce examples, but during the classical and Imperial periods it acquired the same meanings as *ut* and *sicut*, which it surpasses in frequency (Fontana Elboj 1997: 127).

(69) Cic. *Mil.* 30: *haec sicuti exposui ita gesta sunt, iudices*
'these things were all done, O judges, just as I have related them'

Since it is a relative in origin, *ut* admits the addition of suffixes *-cumque* (*utcumque*, cf. *quicumque*) or, less frequently, reduplication (*utut*, cf. *quisquis*), modifications which in pronouns give rise to indefinite forms. In comparative constructions, the addition of this nuance explains the (non-obligatory) presence of the potential subjunctive (70). In Late Latin, *ut* is reinforced by the prepositions *iuxta* and *secundum* and at the same time replaced (as in other types of subordinate constructions) by the conjunction *quod*; hence it is possible to find combinations of the type *iuxta ut/quod*, *secundum ut/quod*, etc. to introduce comparatives (Herman 1963: 98). The sole form *secundum* is also used as a comparative conjunction in Medieval Latin, from which comes the Spanish *según* 'as, according to' (Bastardas 1953: 196).

37. According to Mellet (1998: 537) there is a difference in Classical Latin between *sic*, which refers to an external element, and *ita*, which establishes an "identification sans altérité". Hence *sic* is used above all in comparative constructions, whereas *ita* predominates in consecutive constructions.

(70) Plaut. *Bacch.* 659–660: *bonus sit bonis, malus sit malis; / utcumque res sit, ita animum habeat*
'good with the good let him be, bad with the bad; however things are, let him ever frame his reason accordingly'

The conjunctions *quemadmodum* and *quomodo* are grammaticalizations of phrases that clearly include the relative and a substantive that signifies "manner".[38] In Archaic Latin they are only used as interrogatives (Plaut. *Amph.* 1023; *Persa* 35), and scarcely a couple of examples can be quoted in which a glimpse can be caught of the use as a relative that gives way to the comparative ((71)–(72)). However, from the classical period on they already appear in correspondence with the aforementioned particles or, especially, introducing parenthetical comparatives (cf. Section 3.2.2). Without going so far as to supplant *ut* or *sicut*, used during all periods, their use was reaffirmed: in Late Latin it clearly surpasses that of *ut* (e.g., it is the regular form of comparison in *Itala*, Hofmann & Szantyr 1965: 648). But by comparison with *quomodo*, which saw an extraordinary increase in frequency and variety of use,[39] *quemadmodum* went into a decline from the second century CE on (Fontana Elboj 1997: 148). Indeed, while *quemadmodum* was not preserved in the Romance languages, *quomodo* is the form from which the comparative particles in these languages come: Fr. *comme*, It. *come*, Sp. *como*, Catal. *com*, Port. *como*, Rum. *cum*, etc. It seems to have been of common use in spoken language, since there is evidence of it very early on in popular inscriptions in Rome and Pompeii (73). This particle not only prevailed as an introductory formula in comparative clauses of Manner, but also spread to comparative clauses of Degree, taking the place of *quam*, as we have said concerning the evolution of the equative correlations (cf. Section 2.4.2).

38. Cf. Hofmann & Szantyr (1965: 648); Fontana Elboj (1997: 139). Thompson and Longacre (1985: 178) point out the possibility of paraphrasing clauses of Manner with a relative clause (*as* = *the way in which*).

39. In Late and Medieval Latin *quomodo* – and to a lesser extent *quemadmodum* – also introduces completive, temporal, causal, and final subordinate constructions (Herman 1963: 44).

(71) Plaut. *Mil.* 257: ... *ut teneat consilia nostra, quem ad modum exorsi sumus*
'that she may understand our scheme, as we have begun it'

(72) Plaut. *Cist.* 46: *necesse est, quo tu me modo uoles esse, ita esse*
'it behooves me, mother, to be just as you wish I should be'

(73) *CLE* 1798: *labora, aselle, quomodo ego laboraui, et proderit tibi*
'work, little donkey, as I have worked myself, and you will be rewarded for it'

Finally, let us mention the existence of *ceu*, not very common, used by epic and lyric poets and some prose writers (e.g., it is frequent in Pliny the Elder), generally to introduce syntagmatic comparisons; and *quasi*, which, together with *tamquam*, became specialized in the introduction of comparatives of a hypothetical nature, besides appearing in generic similatives, as we said before ((74)–(75)). The situation expressed in the so-called conditional or unreal comparative clauses (Woodcock 1959: 210) is a mere supposition; hence they are always constructed with the subjunctive.[40] In Late Latin the combinations *quomodo si* and *quemadmodum si* are used to express hypothetical comparisons (76).

(74) Verg. *Aen.* 5,740: *dixerat et tenuis fugit ceu fumus in auras*
'so he spoke and fled like smoke curling away into thin air'

(75) Plaut. *Amph.* 1096: *aedes totae confulgebant tuae, quasi essent aureae*
'all your house was shining bright, as though it had been made of gold'

(76) Greg. Tur. *stell.* 11: *sic est uerbum Dei, quemadmodum si iactet homo semen*
'thus is the word of God, as if a man cast a seed'

40. Cf. Kühner & Stegmann (1914, 2: 453), Ernout & Thomas (1953: 388). The use of the tenses of the subjunctive is a complex question. It seems to be related to the type of particle (presence or not of the conjunction *si*) and the influence of the *consecutio temporum*. The main problem is the use of the present and the perfect of the subjunctive, potential tenses, to express apparently unreal situations. Cf. the discussion in Fontana Elboj (1997: 193), Cabrillana (2002).

3.2. Functions of comparative clauses of Manner

From a semantic point of view, the prototypical function of the comparative clause of Manner is to express "the way or manner in which the verbal action is performed" (Bassols 1956: 293). But two things should be borne in mind:

(i) The Manner function is not always expressed by means of a comparison: in Latin it can also be carried out by phrases in the ablative or prepositional phrases, adverbs, participles, gerunds or gerundives, and so on (Vester 1983: 109; Pinkster 1972: 124; 1990: 28, 116; Iordache 1998). Thus, it is possible to find various expressions as the answer to the question *quo modo?* 'how?', which allow this function to be identified in a general way.[41] In (77), the question *quo modo* really has an exclamatory value, it does not seek to obtain specific information: hence, the comic effect produced by the answer (*sine* ... , *cum* ...), which is a literal reply concerning how the sale was made. In (78), two gerunds appear in answer to the question; and in (79) we have a comparative clause of Manner without the verb expressed.

(77) Plaut. *Pseud.* 340–342: *non habes uenalem amicam tu meam Phoenicium? /* :: *Non edepol habeo profecto, nam iam pridem uendidi. /* :: *Quo modo?* :: *Sine ornamentis, cum intestinis omnibus*
'have you not got my mistress, Phoenicium, on sale? :: By Pollux, I really have not; for I've now sold her already :: In what way? :: Without her trappings, with all her innards'

(78) Sen. *dial.* 4,33,2: *quidam interrogaret quomodo rarissimam rem in aula consecutus esset, senectutem, 'iniurias' inquit 'accipiendo et gratias agendo'*
'when some one asked him how he had attained what was so rarely achieved at court, namely old age, he replied, "By accepting injuries and returning thanks for them"'

(79) Tac. *ann.* 2,40,3: *percontanti Tiberio quo modo Agrippa factus esset respondisse fertur 'quo modo tu Caesar*
'when Tiberius asked him how he had become Agrippa, he is said to have replied, "As you became Cæsar"'

41. "If a constituent can both be the answer to a question with *how?*, and be paraphrased by 'in a ... way/manner', it has the status of a Manner satellite" (Dik 1989: 196).

(ii) The comparison does not always express Manner. The grammars usually attribute to comparative clauses of Manner a series of values or nuances (causal, adversative, restrictive, parenthetical, etc.), which we analyze later (see Section 3.2.2).

Next we review in detail the functions that comparative clauses of Manner can carry out in the main clause, functions that depend on their content, on the characteristics of the predication in which they are integrated, and on the level of the clause in which they act. The clause is basically analyzed on two levels, the representational level and the interpersonal level: "The representational level is concerned with the narrated event, the interpersonal level with the speech event" (Hengeveld 1989: 128).

3.2.1. Representational level

"At the representational level a state-of-affairs is described in such a way that the addressee is able to understand what real or hypothesized situation is referred to" (Hengeveld 1989: 128). When the comparative clause of Manner is integrated into this level, it can act as a satellite of the predicate or as an argument, according to its degree of necessity with respect to the verb.

As a satellite, the comparative clause of Manner can carry out some of the functions that Dik includes under the heading *Means and Manner* ("specifications of the manner in which or the means by which the state-of-affairs is effected: Instrument, Manner, Speed, Quality", Dik 1989: 195; Dik et al. 1990: 30). Kortmann (1997: 87) groups among *Mode Relations* the labels *Similarity* ('as/like'), *Comparison* ('as if'), and *Comment/Accord* (*Source* in Dik et al. 1990: 37), giving them a semantic nature, on a par with those of *Instrument/Means* ('by *p, q*') or *Manner*, which he also includes in this section. In other words, while Latin grammar presents this type of clause as a subordinate that expresses mode or manner by means of comparison (*vergleichende Adverbialsätze der Qualität oder Beschaffenheit*, Kühner & Stegmann 1914, 2: 448), it is also possible to consider comparison and manner as two different semantic functions. Given that in Latin comparisons can occupy the same place as other elements to which the Manner function is attributed, as we have seen in (77)–(79), we opted for considering them and calling them "comparative clauses of Manner". This means that the *Manner* function can be carried out by various types of constituents, both simple (adverbs, phrases

in the ablative, or prepositional phrases, etc.) and complex, among which are comparative clause of Manner.[42] The coordination of comparative clauses of Manner with this other type of realization proves their isofunctionality. In (80), coordination occurs between an adverb and the subordinate of *ut*; in (81), between a noun phrase and the hypothetical comparative introduced by *tamquam*, both satellites of *monuit*. In both cases the comparative clauses of Manner act as satellites or adjuncts – that is, as constituents that provide additional information to the state of affairs expressed in the main clause (Hengeveld 1989: 150; Dik et al. 1990: 26). When a noun phrase or a deictic appears announcing the subordinate construction, this shares the syntactic role with it and provides the semantic content. The possibility of eliminating the subordinate without the rest of the clause becoming agrammatical, owing to the presence of the deictic that continues to occupy the syntactic place previously shared, seems to suggest that the comparative clause of Manner in this case is an element less structurally integrated into the main clause than when it appears on its own ((82); de la Villa 2001: 126).

(80) Plaut. *Aul.* 183: *quid tu? recten atque ut uis uales?*
'how are you? Are you all right, and as well as you could wish?'

(81) Tac. *hist.* 4,44,5: *simul eos … monuit sermone molli et tamquam rogaret*
'at the same time he admonished them in gentle terms and in a tone of entreaty'

(82) Plaut. *Rud.* 1072: *hoc modo res gesta est ut ego dico*
'the matter happened in this way, as I am telling you'

However, comparative clauses of Manner does not only appear on the periphery of the predication, but they can also appear next to the copulative verb. Let

42. Crespo (1988: 49) also attributes the semantic function Manner to comparatives in Greek. Let us mention in passing that the category "clauses of Manner", of which comparative clauses of Manner are only one kind, is not usually found in Latin grammars, perhaps because this function is more often expressed by means of noun phrases. Iordache (1998) vindicates its existence and also includes in it, besides the comparatives, with which they are sometimes exclusively identified, the *cum identicum* (type *cum tacent, clamant*), certain *Participia Coniuncta*, the *Gerundium*, etc.

us consider (83)–(86), which are graded. One of the possible constructions of the verb *sum* in Latin is as a copulative verb with a subject and a nominal predicate. Having established the subject, we tend to interpret the element that gives us the greater lexical content as nominal predicate: if only a deictic appears, as in (83), there is no option but to take it as nominal predicate and fill it semantically with the information it refers to; if there is nothing more linguistically expressed, it must be sought in the situational context; if there is a comparative, this is the source of information, see (84), which can appear directly without the announcing deictic, see (85). However, if there is a noun phrase, as in (86), this becomes the most lexically suitable candidate for acting as a nominal predicate, and the rest is reinterpreted as an announcement and as a disjunct that refers to the context in order to confirm the truth of the statement. When the comparative directly occupies the place of the nominal predicate, it is a case of *embedding*, which is the most integrated form of subordination (Hopper and Traugott 2003: 178). On the other hand, if it appears sharing the syntactic position with an announcing element, we can understand that it has a kind of appositional relationship with this element, similar to that which occurs when the comparison is added to an adjective, as in generic similatives (87). The predicate *udi* 'wet', referring to the subject of *redibant*, has as expansion the syntagmatic comparative *tamquam mures* 'like rats'. In such cases the comparison serves to specify or intensify the information given by another element which is the one that forms part of the main clause (*sic, udi*), and with which the main clause is syntactically complete. Hence the degree of integration of the comparative in it is less than when it occupies this position directly, as in (85).

(83) Ter. *Phorm*. 527: *sic sum*
'I'm me, see'

(84) Plaut. *Amph*. 604: *satin tu sanus es? :: sic sum ut uides*
'are you quite in your senses? :: I'm just as you see me'

(85) Plaut. *Capt*. 228: *ero ut me uoles esse*
'just as you shall desire me to be, I will be'

(86) Plaut. *Rud*. 3: *ita sum, ut uidetis, splendens stella candida*
'I am, as you see, a bright and shining star'

(87) Petron. 44,18: *urceatim plouebat … et omnes redibant udi tamquam mures*
‘at once it came down in buckets and they all went home looking like drowned rats’

So far the examples of comparatives we have seen in the different functions mentioned, whether as satellites or as arguments, provide information relating to the state of affairs represented. But the construction can also be used to provide data external to the situation described, information referring to the message itself – that is, to the presentation of the facts that the speaker is making for his interlocutor: in these cases the comparative is situated at the interpersonal level.

3.2.2. Interpersonal level

At the interpersonal level, the situation “is presented in such a way that the addressee is able to recognize the communicative intention of the speaker” (Hengeveld 1989: 128). The comparatives that provide this type of information act as *disjuncts*, whether as *proposition satellites* (σ_3) or as *illocution satellites* (σ_4), according to the classification of Hengeveld (1990) and Dik et al. (1990).

Latin grammars recognize a peculiar group of comparatives that introduce parentheses or examples, which are said to reinforce the expression (Kühner & Stegmann 1914, 2: 450; Hofmann & Szantyr 1965: 634). The most used particles are *ut*, *sicut*, and *uelut*, which do not usually have an anaphor in the main clause, precisely because they do not belong to the level of predication ((88)–(91)). However, these parenthetical comparatives are integrated at the level of the proposition, which is the level at which the content of the predication is related to reality and acquires the value of truth. At this level, what the speaker is comparing is the propositional content with the set of knowledge, beliefs, and so on of an entity, either of the speaker himself or of another person. The speaker thus limits or reinforces the truth value of the proposition (Pinkster 1990: 33). Typical of this level are the so-called satellites of Attitude, which specify the opinion of the speaker about the content of the sentence, as in (88), and the satellites of Source, which refer to a third party responsible for the information (*Comment/Accord* Kortmann 1997: 87;

1998a: 467; Dik et al. 1990: 37), as in (89), or clarify the origin of the knowledge on which the statement contained in the main clause is based (Scherer 1975: 231), as in (90). The examples in (91) are also a way of appealing to the reality known by the interlocutors, in order to certify the statement they illustrate.

(88) Sall. *Iug*. 69,1: *primo, uti erat res, Metellum esse rati*
'they judged rightly at first that it was Metellus'

(89) Plin. *nat.* 2,38: *a sole numquam absistens partibus sex atque quadraginta longius, ut Timaeo placet*
'never receding from the sun more than 46 degrees, according to Timaeus'

(90) Plaut. *Rud*. 303: *ut nunc ualide fluctuat mare, nulla nobis spes est*
'and since the sea is now in such powerful waves, we have no hope'

(91) Plin. *nat.* 11,284: *quaedam rursus exiguo gustu famem ac sitim sedant conseruantque uires, ut butyrum, hippace, glycyrrhiza*
'on the other hand, there are some substances which, tasted in small quantities only, appease hunger and thirst, and keep up the strength, such as butter, for instance, cheese made of mares' milk, and licorice'

Likewise, the formulae for solemn statement (Kühner & Stegmann 1914, 2: 451; Scherer 1975: 231; Touratier 1994: 651) in which a comparison is made between the truth of a wish, expressed in the main clause, and the truth of what is affirmed in the subordinate clause can also be included among the disjuncts of Attitude ((92)–(93)). Furthermore, the comparatives usually classified in the grammars as "restrictive apposition" or "causal" (*Apposition in beschränkendem/begründendem Sinne*: Kühner & Stegmann 1914, 2: 452; Bassols 1956: 297; Scherer 1975: 192) can also be understood as propositional disjuncts. This is additional information that the speaker intercalates in the sentence to specify the meaning of one of its elements ((94)–(95)). Two expressions of similar appearance acquire different meanings according to the content and interpretation that the reader gives them, taking as a basis their pragmatic information, which leads the reader to understand the comparison as a restriction of the attribute *exercitatum* in (94) and as a justification of *acutus* in (95). The element inserted by the comparison is usually syntagmatic,

that is, a predicative phrase or apposition, but it can also be a circumstantial phrase (96) or may even have an explicit verb, as in (97) and (98). In all these cases the comparative introduces a perspective or point of view from which the statement contained in the main clause must be interpreted in order to understand it correctly. In short, it is a restrictor of its validity, a propositional disjunct.

(92) Ter. *Haut*. 686–687: *ita me di ament ut ego nunc non tam meapte causa / laetor quam illius*
'and, so help me, I'm not nearly so happy for myself as I am for her'

(93) Cic. *Att*. 5,15,2: *ita uiuam ut maximos sumptus facio*
'why, upon my life, I am living at a vast expense'

(94) Nep. *Epam.* 5,3: *habuit obtrectatorem Menecliden quendam, indidem Thebis, et aduersarium in administranda re publica, satis exercitatum in dicendo, ut Thebanum scilicet: namque illi genti plus inest uirium quam ingenii*
'he had for a traducer, and opponent in managing the government, a certain Meneclidas, also a native of Thebes, a man well skilled in speaking, at least for a Theban, for in that people is found more vigor of body than of mind'

(95) Cic. *ac.* 2,98: *homo et acutus ut Poenus et ualde studiosus ac diligens*
'a witty man, as is usual in Carthaginians, and very diligent and careful'

(96) Cic. *Brut*. 102: *L. Coelius Antipater scriptor, quemadmodum uidetis, fuit ut temporibus illis luculentus*
'L. Caelius Antipater likewise (as you may see by his works) was an elegant and handsome writer for the time he lived in'

(97) Cic. *de orat.* 1,45: *florente Academia, ut temporibus illis ferebatur*
'in the flourishing Academy, as it was considered at that time'

(98) Caes. *Gall*. 4,3,3: *ciuitas ampla atque florens, ut est captus Germanorum*
'whose state was large and flourishing, considering the condition of the Germans'

As regards the comparative structures to which a causal nuance is usually attributed, they may be appositions, as in (99), or have an explicit verb, generally the copulative verb, as in (100). As occurs with predicative phrases and appositions in general, they can receive a causal interpretation derived from their content, and can also be carriers of Focus[43] – that is, they constitute the most relevant element from the point of view of information. In (99)–(100), both occur: in (99) the information *tamquam suo … filio* can be understood as the cause of the main action (giving the ring) and is, moreover, very important, since it leads to the recognition of the person by the interlocutor, who turns out to be his sister; in (100), the adjective *furiosus* is underlined with greater emphasis than if it were formulated as an attribute (*hominem furiosum*) and the subordinate construction introduced by *ut* is also susceptible to being interpreted as causal. In other cases, a causal relationship is not perceived, but the comparative continues to mark a Focus. In (101) the gesture of not opening the letter immediately – the letter that warned of a plot – would have fatal consequences for the interested party, who was to be murdered that very night: the comparative draws the attention of the reader to a decisive detail.

(99) Plaut. *Curc*. 637–638: *is prius quam moritur mihi dedit tamquam suo, / ut aequom fuerat, filio*
‘he, before he died, gave it (the ring) to me as being his son, as it was right he should’

(100) Cic. *S. Rosc.* 33: *aiunt hominem, ut erat furiosus, respondisse …*
‘they say that the fellow, like the madman he was, replied … ’

(101) Nep. *Pel.* 3,2: *allata est enim epistula Athenis … in qua omnia de profectione eorum perscripta erant. quae cum iam accubanti in conuiuio esset data, sicut erat signata sub puluinum subiciens ‘in crastinum’ inquit ‘differo res seueras’*
‘a letter was brought from Athens in which a full account had been written concerning the expedition of the exiles. This letter being delivered to him (Archias) as he was reclining at the banquet, he,

43. Pinkster (1990: 161); Dik (1997: 326); Van Valin and Lapolla (1997: 199); García Velasco (2003: 200). On causal subordinates introduced by *ut*, cf. Baños (this volume).

thrusting it under the bolster, sealed as it was, said, "I put off serious matters till tomorrow"'

The comparative can also serve to mark a Focus of contrast: that is, with it the speaker establishes a parallelism between a subordinated constituent and another in the main clause, to emphasize either an opposition or a similarity (cf. Dik 1997: 330; Revuelta Puigdollers 2002: 197 *marcador de Foco Paralelo o Expansivo*). The information contained in the subordinate clause, in both (102) and (103), is presupposed information – that is, it is presented as information already known with which the information in the main clause, on which the focus falls, is compared. On this occasion, the subordinate does not carry the focus, as in (101), but rather marks the element of the main clause object of the focus.

(102) Cic. *epist.* 7,13,2: *te istic inuitum non esse uehementer gaudeo et, ut illud erat molestum, sic hoc est iucundum*
'I am exceedingly glad that you are content to be where you are, and as your former state of mind was vexatious, so your present one is gratifying to me'

(103) Liv. 21,5,2: *ratus ne se quoque, ut patrem Hamilcarem, deinde Hasdrubalem, cunctantem casus aliquis opprimeret* . . .
'feeling that he ought not to delay operations, lest some accident should overtake him as in the case of his father Hamilcar and afterwards of Hasdrubal . . . '

Related to the comparative appositions, since it shares its formal expression with them, is the function that functional grammar calls Role or Quality ((104); Quality: Dik et al. 1990: 31; Role Phrase: Haspelmath and Buchholz 1998: 321; *Calidad*: Revuelta Puigdollers 2002: 195). According to Haspelmath and Buchholz (1998: 321), "Role phrases express the role or function in which a participant appears. A role phrase can be thought of as secondary predication over a participant which is referentially controlled by that participant". In many languages it is expressed with the same particle used in similative constructions (in Spanish, *como*); in others this function is lexicalized differently than the Manner function: *he works like a slave* (Manner) / *he works as a slave* (Role). When this is so, the Role markers are usually old forms of the similative marker, since they do not undergo the same renewal

as the latter. In Latin, *tamquam* or the conjunction simple *ut* are also used as Role marker, and not the rest of the renewed forms. But since it is not used exclusively for this function a formal ambiguity occurs, as *ut* can introduce both a comparison, (105), and a Role phrase, (106). In (105) the syntagma *ut fratrem* expresses the manner in which the action of loving is carried out ('as one loves a brother'); it is equivalent to the adverb *fraterne*, which Cicero uses in other passages (107). On the other hand, in (106) the syntagma *ut fratrem* (and also *ut minorem*) expresses the condition that allows Cicero to appease and counsel his younger brother ('as a brother'). Despite formal identity, Role phrases can be recognized because there is a difference in meaning: the Role syntagma denotes a class of entities to which the element from which this Role is predicated really belongs, not an entity merely comparable with it; that is, it expresses identification and not comparison (Revuelta Puigdollers 2002: 196). In these examples we can see that in (106) Quintus is Cicero's actual brother, and in (104) Vespasian is really emperor, whereas in (105) this requirement is not fulfilled. The Role Phrase is also characterized by being a function associated with a certain type of states of affairs (controlled, cf. Dik et al. 1990: 31), generally carried out by substantives, and referring to the subject or object of the main verb.

(104) Tac. *hist*. 4,3,16: *ceterum ut princeps loquebatur, ciuilia de se, et rei publicae egregia*
'the writer (Vespasian), however, expressed himself as an Emperor, speaking modestly about himself, in admirable language about the State'

(105) Cic. *ad Q. fr.* 1,3,3: *quem meus Cicero … amabat ut fratrem*
'whom my little Cicero loved like a brother'

(106) Cic. *Att*. 1,5,2: *eas litteras ad eum misi quibus et placarem ut fratrem et monerem ut minorem*
'I wrote to him in such a way as I thought would not hurt his feelings as a brother, while giving him some good advice as my junior'

(107) Cic. *Att*. 1,5,8: *tibi persuadeas te a me fraterne amari*
'be assured that I love you like a brother'

In Latin, the Role phrase can also be expressed by an apposition or by a noun phrase formed by a substantive of generic meaning (*loco*, *nomine*) and a complement in the genitive ((108)–(109)).[44] In short, the concept of Role phrase is more restricted than the traditional category of "comparative apposition" (Kühner & Stegmann 1914, 2: 452; Scherer 1975: 192), in which all kinds of appositions and predicative expressions reinforced by a comparative particle enter (*ut, tamquam, quasi*, etc.).[45]

(108) Caes. *Gall.* 2,5,1: ... *principumque liberos obsides ad se adduci iussit*
'(Caesar) ordered the children of their chief men to be brought to him as hostages'

(109) Caes. *civ.* 1,84,2: *datur obsidis loco Caesari filius Afrani*
'Afranius's son was given as a hostage to Caesar'

Finally, comparatives can be inserted in the upper level of the statement. They then act as modifiers of the speech act or "disjuncts of style", with which the speaker refers to the discourse, both to its content and expression, for instance to structure it, comment on or justify its form, and so on ((110)–(111); Pinkster 1990: 34). To sum up, the application of the notion of comparison to elements situated on different levels of the sentence gives rise to subordinate constructions with different functions. Proof that the comparative structures are integrated into diverse levels is the fact that we can find them juxtaposed to other satellites (112) or embedded in each other, in particular the disjuncts (113).

(110) Plin. *nat.* 18,270: *sentiunt id maria et terrae, multae uero et ferae, ut suis locis diximus*
'the influence of it is felt by both ocean and earth, and even by many of the animals as well, as stated by us elsewhere on the appropriate occasions'

44. This procedure exists in languages such as Chinese, cf. Bisang (1998: 727).
45. A structure that transmits a type of information similar to that of these predicative expressions is the syntagma *pro* + ablative. See Torrego (1995: 301) on its semantic and syntactic characteristics.

(111) Cic. *inv.* 1,109: *quemadmodum enim dixit rhetor Apollonius, 'lacrima nihil citius arescit'*
'for, as Apollonius the rhetorician said, nothing dries more quickly than a tear'

(112) Cic. *leg.* 1,63: *deinde facio et lubenter et, ut spero, recte*
'and for the rest, I prosecute this enquiry with pleasure, and I trust with fairness'

(113) Cic. *off.* 1,82: *ut enim sunt, quemadmodum supra dixi, qui urbanis rebus bellicas anteponant, sic reperias multos, quibus ...*
'for whereas there are many, as I have said before, who place the achievements of war above those of peace, so one may find many to whom ... '

3.3. Syntactic, semantic, and pragmatic status of comparative clauses of Manner

Unlike comparative clauses of Degree, comparative clauses of Manner are not an example of hypotaxis or correlation but rather can be considered subordinate constructions, in the sense that we have previously given to these terms (cf. Section 2.7), since, in general, they are more integrated into the main clause. This depends on the main clause syntactic level which the subordinate clauses belong to and on the function they perform in it.

Broadly, the situation is as follows. As we have seen in the previous examples, the subordinate construction can be announced or reflected by a deictic to which it gives semantic content. But the comparative clause of Manner can also appear without need of a correlative, governed directly by the main predicate, with respect to which it can occupy a peripheral position, as a circumstance adverbial or satellite of Manner, or a more central position, as nominal predicate next to the copulative verb. Moreover, the so-called parenthetical comparatives (type *ut supra diximus*) are found outside the predication. These are subordinate constructions that are not integrated into the predication but which affect the statement. Syntactically, they depend on the main clause, since they cannot appear without it. But dependence is not complete, because

they do not carry out any function in the main clause, neither are they governed by the predicate in a way that makes them necessary elements (de la Villa 2001: 124). In short, from a syntactic perspective, comparative clauses of Manner behave like adverbial subordinate constructions, although in some cases, when they act as a nominal predicate, they have a greater degree of integration (one could even speak of embedding), and in other cases, a lesser degree, since they do not belong to the main predication.

As regards their semantic and pragmatic function, it depends on the level at which the construction is found: often it is a satellite of manner that specifies the way in which the main action is performed; but even more often, since the various possibilities of realization are greater, the comparative maintains a vague semantic relationship with the main clause, a relationship that can receive various pragmatic interpretations. Basically, it can be a reinforcement or a restriction of the propositional content, or else an observation concerning its form. If these structures continue to receive the name of comparatives in the grammars, it is above all for formal reasons (the introductory particles *ut, sicut, quomodo*, etc.; the indicative mood), since their content moves away from mere comparison to give rise to all kinds of pragmatic inferences that bringing the two situations into contact makes possible.

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Anna Pompei

Relative clauses

1. Definition and structure of the relative clause

1.1. *Status quaestionis*

Latin relative clauses have been the subject of much discussion, which has embraced all the relevant aspects of the construction. However, they have rarely been analyzed within the perspective of typological studies, which is the aim of this chapter.[1]

The chapter is organized as follows: after defining what is meant by relative clause in Latin (Section 1.2) and typological (Section 1.2.1) studies, the remaining part of the first section is dedicated to the structure of Latin relative clauses. On the basis of typological definitions, which tend to focus on the whole relative construction rather than the relative clause alone, Section 2 concentrates on the realization of the pivot in the matrix clause and its semantic consequences. Section 3 focuses on true relative clauses and their classifications within typological studies, with special attention to relativization operations (Section 3.1), the accessibility hierarchy (Section 3.2), relativization strategies (Section 3.3), and the position of relative clauses in relation to the lexical head and the matrix clause (Section 3.4). In Section 4 a proposal for a typological classification of Latin relative clauses is presented. On the

1. On the typology of Latin relative clauses, see especially Touratier (1980), who takes into account a large number of languages, even though his approach is mainly structural, and recently Ramos Guerreira (2009); Lehmann in his monograph (1984) on relative clauses from a typological perspective makes many relevant observations on Latin. A bibliography of studies on Latin relative clauses can be found in Lavency's survey (1998: 131–133), which summarizes his extensive research on the matter. For an analysis of Latin relative clauses within Indo-European languages, see the classic treatment in Delbrück (1900: 400–405) and, more recently, Kurzová (1981); for an analysis of Indo-European relative clauses from a typological perspective see also Lehmann (1980).

basis of this taxonomy, Section 5 proposes a hypothesis for the reconstruction of the diachronic development of Latin relative clauses (Section 5.1), whose main features are illustrated through the different stages in the history of Latin (Sections 5.2–5.4).

1.2. Definition of relative clauses

In Latin, a relative clause can be defined as a subordinate clause introduced by a relative pronoun or a relative adverb.[2] If we try to analyze Latin relative clauses from a crosslinguistic perspective, however, it is necessary to start from a wider definition, which includes the whole set of constructions with the same function in the world's languages. In some cases Latin itself uses participles as a strategy which is functionally equivalent to relative clauses introduced by a relative pronoun (Section 1.5.1).

1.2.1. Typological definitions

Lehmann (1986: 664) remarks that when we speak about a relative clause, we necessarily refer to a nominal head. Therefore, he prefers to define the relative construction: A relative construction is a construction consisting of a nominal and a subordinate clause interpreted as attributively modifying the nominal. The nominal is called the head and the subordinate clause the relative clause. The attributive relation between head and relative clause is such that the head is involved in what is stated in the clause.

More recently, de Vries (2002: 14) lists the following "defining properties" of relative clauses:

– A relative clause is subordinated.
– A relative clause is connected to surrounding material by a pivot constituent.

In de Vries's definition, the pivot is an element semantically shared by the matrix clause and the relative clause which can be phonetically realized

2. See e.g. Kühner & Stegmann (1914, 2: 279, 284–285), Ernout & Thomas (1953: 333–334).

within the former or the latter. These defining properties are together stronger than just coreference.

It is noteworthy that both definitions make no reference to the presence of a relative pronoun in the relative clause: from a typological point of view, the formation of relative clauses through relative pronouns is a marked strategy (Section 3.3.3).

1.2.2. Structure of Latin relative clauses

Latin relative clauses are always introduced by relative pronouns or relative adverbs (Section 1.3.1) and mostly have a finite verb (Section 1.4). However, there are cases in which the predicate of a relative clause is not a finite verb and cases in which participles fulfill the same function as relative clauses and can thus be regarded as an alternative strategy (Section 1.5).

1.3. Relative pronouns and relative adverbs

1.3.1. Types of relative pronouns and relative adverbs

The basic relative pronoun in Latin is *qui quae quod*, which has the forms shown in Table 1.[3] *Qui quae quod* may co-occur with nouns, with which they agree in number, gender, and case; these instances have been considered adjectival uses of pronouns or determiners.[4]

Besides *qui quae quod*, there are two other pronouns which are usually called *relative-indefinite*:

(a) *quicumque quaecumque quodcumque*, usually analyzed as *qui- quae- quod-* plus the invariable suffix -*cumque*;

(b) *quisquis quidquid* (or *quicquid*), formed by the reduplication of *quis*, an alternative form of *qui* occurring since Early Latin (Section 1.3.3).

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3. The table is based on Lavency (1998: 3); the forms listed are those occurring in Classical Latin with some relevant archaic forms in parentheses. See Kühner (1912, 1: 607–613), Ernout (1953: 84–89) for further discussion of relative pronoun morphology.

4. See e.g. Lavency (1998: 1) for the interpretation as an adjective; Touratier (1994: 616–617) for the analysis as a relative determiner.

Table 1. Forms of the relative pronoun

	Singular			Plural		
	M	F	N	M	F	N
Nom.	qui (quei)	quae	quod	qui (quei)	quae	quae
Acc.	quem	quam	quod	quos	quas	quae
Gen.	cuius (quoius)			quorum	quarum	quorum
Dat.	cui (quoi)			quibus (quis)		
Abl.	quo	qua	quo	quibus (quis)		

A relative clause can also be introduced by adverbs sharing the same root, such as the locatives *ubi*, *unde*, *quo*, *qua*, the instrumental *quo*, or *cum* with a temporal value after a time noun.[5]

1.3.2. Functions of relative pronouns

Ever since the Port-Royal *Grammaire générale et raisonnée*, relative pronouns have been given a double function, as both pronouns and subordination markers. This means that relative pronouns work as complementizers, without being invariable; they mark subordination through coreference with a constituent of the matrix clause with which they agree in gender and number. As phoric pronouns, their case is determined by their function within the relative clause.

Lehmann (1984: 248) proposes a subtler distinction. He states that the function of relative pronouns is threefold, since their root marks subordination while their endings mark both the attributive feature of the relative clause (attribution: Section 3.1.2) and the syntactic function of the relativized constituent (empty-place formation: Section 3.1.3).

1.3.3. Etymology of relative pronouns

Latin relative pronouns can be traced back to the Proto-Indo-European root $*k^w o$-/$*k^w eh_2$-/$*k^w o$-, which is regarded as an adjectival/relative variant of

5. On the relative value of *cum* see Lavency (1985: 227–228; 1998: 3), with whom Touratier (1994: 621) agrees. For the development of relative *cum* from correlation see Haudry (1973: 159, e.g. *id tempus cum*).

the interrogative/indefinite root *k^w*e-/*k^w*i-*. In the passage from Proto-Indo-European to Latin, the interrogative pronoun *quis quid* is formed from the latter root, which only realizes the opposition [±ANIMATE]. On the other hand, the relative pronoun developed with distinct forms for masculine and feminine because of coindexing with a nominal head; the same thing later happened for interrogative/indefinite pronoun, which also developed a feminine *quae* (and *qua*, for the indefinite sense) form.[6] Indeed, the common source of interrogative, indefinite, and relative pronouns determines coincidence of forms to a certain degree. Thus there is some confusion between *qui* and *quis*, and consequently between relative and indirect interrogative clauses, in particular in Early Latin (see e.g. Löfstedt 1933).

(1) Plaut. *Aul.* 716: *obsecro uos ego, mi auxilio, / oro obtestor, sitis et hominem demonstretis quis eam abstulerit*
'help, help, for heaven's sake, I beg you, I implore you! Show the man that took it'

(2) Plaut. *Aul.* 773–774: *atque id si scies / qui abstulerit, mihi indicabis?*
'and if you learn who took it, you'll inform me?'

The close relationship between relative and indefinite-interrogative forms gave rise to a controversy about the origin of the relative pronoun from the interrogative or the indefinite pronoun.[7]

On the basis of cases like the formula reported by Festus (394,25), *qui patres qui conscripti*, used to refer to senators as a whole, or the formula in the *Augurum libri* quoted by Varro (*ling.* 5,58) *diui qui potes* – which

6. See e.g. Baldi (2002: 71, 345–347); Szemerényi (1996: 208–211); Ernout (1953: 84–89). See also Löfstedt (1933) regarding the confusion between *qui* and *quis* in Late Latin.
7. Alongside the root *k^w*o-/*k^w*eh_2-/*k^w*o-* – to which relative pronouns in Italic languages, Tocharian, and Hittite can with certainty be referred – another pronoun **yos/*yeh_2/*yod* is reconstructed for Greek, Indo-Iranian, and Slavic languages: see Porzig (1954). According to Lehmann (1984: 369 n. 15), the concern regarding the priority of one of the two forms derives from the underlying undemonstrated assumption that a language cannot have more than one relativization strategy. On the question of the priority of the interrogative or the indefinite value of the root *k^w*o-/*k^w*eh_2-/*k^w*o-*, see Gonda (1954), Hofmann & Szantyr (1965: 554), Haudry (1973: 166–168), among others. Haspelmath (1997: 174–176) remarks that interrogative and indefinite pronouns share a feature of "ignorance".

corresponds to Gk. θεοὶ δυνατοί – Benveniste (1957) claims instead that the relative pronoun is originally a determiner.[8]

1.4. Relative clauses with a finite verb

Relative clauses usually have finite verbs, mostly indicative or dependent subjunctive, or even imperative and independent subjunctive.

Relative clauses with an imperative or an independent subjunctive (exhortative or optative; see Touratier, 1980: 429) normally occur at the end of the sentence ((3)–(4)), or in a parenthetical context (5).[9]

8. Benveniste (1957) thinks that *qui* originates as a nominal determiner and becomes a relative pronoun by extension when it is employed with a verbal clause. He works in a comparative way, by widening his perspective from Latin to Hittite, to Indo-European languages with relative pronouns of the **yos* series, and then to a crosslinguistic dimension. Benveniste's hypothesis is rejected by, among others, Touratier (1980: 467–482) (Section 1.5); in this respect see also Longobardi (1980). On the other hand, Benveniste's hypothesis is supported by, among others, Serbat (1988: 43), who regards the root *qu-* as a demonstrative, which nominalizes a predicative nucleus, i.e. a clause. Addabbo (2001: 164) compares two parallel excerpts from Cato (*agr.* 13,1: *in torcularium in usu quod opus est* vs. *agr.*, 13,2: *in cellam oleariam haec opus sunt*) to show by a commutation test that relative pronouns behave as determiners in free relative clauses.
9. Ernout & Thomas (1953: 334–335) argue that these cases are close to relative connection (Section 4.3.1). Indeed, the use of independent moods hints that these relative clauses can differ from the matrix clause in illocution and thus show a certain degree of autonomy from the main clause. This suggests that these relative clauses should be nonrestrictive (Section 2.1.1); Lehmann (1988: 194) claims that the relation between nonrestrictive relative clauses and the matrix clause is sociation, rather than dependency; in this regard see also Dik (1997: 41–43), who argues that nonrestrictive relative clauses can be analyzed as full clause structures, which admit illocutionary satellites. The main objection to this line of analysis is formulated by Touratier (1980: 428–430), who disputes the equivalence between relative clauses in independent moods and relative connection. He cites a passage from Cicero (*rep.* 2,25: *hic ille iam uertetur orbis, cuius naturalem motum atque circuitum a primo discite adgnoscere*), where he claims that the relative clause in the imperative has a restrictive (*déterminative*) semantic value. Touratier's (1980: 430–433) argument goes on to relative clauses embedded in interrogative clauses (e.g., Cic. *off.* 2,73: *capitalis oratio est ad aequationem bonorum pertinens, qua peste quae potest esse maior?*) which doubtless have an illocutionary force. Since he regards them as restrictive as well, even though they are internal-headed, free, or pronominal relative clauses,

(3) Cic. *Verr.* I 1,26: *in eo esse haec commoda: primum M. Metellum amicissimum; deinde Hortensium consulem, non solum, sed etiam Q. Metellum, qui quam isti sit amicus attendite*
'by doing so they would have these advantages: first, that Marcus Metellus was most friendly to them; second, that not only would Hortensius be consul, but Quintus Metellus also; and listen while I show you how great a friend he is to them'

(4) Cic. *Brut.* 297: *longi sermonis initium pepulisti, inquam, Attice, remque commouisti noua disputatione dignam, quam in aliud tempus differamus*
' "you have opened a wide field of enquiry, Atticus," said I, "and started a subject which deserves a separate discussion; but we must defer it to a more convenient time" '

(5) Plaut. *Aul.* 217–219: *quoniam tu me et ego te qualis sis scio – / quae res recte uortat mihique tibique tuaeque filiae! – / filiam tuam mi uxorem posco*
'since you know me, and I know you, what sort of person you are – a thing that may it bring a blessing on myself, and you and your daughter, – I seek your daughter as my wife'

The distribution of dependent subjunctive and indicative is a vexed question which received much attention in traditional grammars and in the literature on relative clauses.[10]

Touratier (1977, 1980: 346) remarks that the selection of subjunctive in relative clauses is subject to the same semantic principles which determine its presence in main clauses: the subjunctive is employed to encode modal values, such as possibility and will, and, in general, nonfactivity, in opposition to the indicative (Pinkster 1995: 276).

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the matter should be further investigated to determine clearly what restrictivity really signifies (Section 2.2.4).

10. See e.g. Kühner & Stegmann (1914, 2: 291–309), who oppose "objectivity" encoded by the indicative to "subjectivity" encoded by the subjunctive. See also Ernout & Thomas (1953: 335), who remark that the indicative is the default mood in relative clauses introduced by an "indeterminate" pronoun or adverb (*quicumque*, *quisquis*, *quotquot*, *quotcumque*, *ubicumque*, *utcumque*), since in these cases indetermination concerns the relativized constituent only and not the reality of the state of affairs.

(6) Liv. 21,45,4: *uocatis ad contionem certa praemia pronuntiat in quorum spem pugnarent*
‘he ordered an assembly, and before the whole army offered definite rewards in the hope of which they were to fight’

(7) Caes. *Gall.* 7,11,3: *ea qui conficeret, C. Trebonium legatum relinquit*
‘he leaves Caius Trebonius his lieutenant, to complete these arrangements’

However, modality alone can explain some, but by no means all, cases of relative clauses in the subjunctive (Vester 1989: 329).[11]

1.4.1. Subjunctive by attractio modi

Grammars speak of *attractio modi* when the subjunctive occurs in relative clauses governed by a clause in the subjunctive (8) or the infinitive (9).

(8) Caes. *Gall.* 1,37,2: …*Haedui questum quod Harudes, qui nuper in Galliam transportati essent, fines eorum popularentur*
‘(ambassadors came) from the Haedui to complain that the Harudes, who had lately been brought over into Gaul, were ravaging their territories’

(9) Sen. *epist.* 75,3: *hoc unum plane tibi adprobare uellem, omnia me illa sentire quae dicerem, nec tantum sentire sed amare*
‘I should like to convince you entirely of this one fact, that I feel whatever I say, that I not only feel it, but love it’

These examples clearly show that, in most cases, it is a question of attraction of modality, rather than mood. The subjunctive here seems to be required for semantic, rather than purely syntactic, reasons: in (8) *oratio obliqua* im-

11. Vester (1989: 329) remarks for instance that the purpose reading of some relative clauses can be explained on modality (or evidentiality) grounds, as in (7); these types of relative clauses are indeed rather problematic, at least in her classification, since they have some features of restrictive and some features of nonrestrictive clauses (Section 1.4.3).

plies evidentiality, and the subjunctive in (9) is required for modal reasons too.[12]

However, there are cases where selection of the subjunctive seems to be entirely due to syntactic dependency; compare ((10)–(11)) from Cicero.

(10) Cic. *div.* 1,5: *nam cum Socrates omnesque Socratici Zenoque et ii, qui ab eo essent profecti, manerent in antiquorum philosophorum sententia … Dicaearchus Peripateticus cetera diuinationis genera sustulit*
'for, though Socrates, and all his followers, and Zeno, and all those of his school, adhered to the opinion of the ancient philosophers, yet Dicaearchus the Peripatetic, on the other hand, denied all other kinds of divination'

(11) Cic. *Tusc.* 2,8: *Platonem reliquosque Socraticos et deinceps eos, qui ab his profecti sunt, legunt omnes*
'all read Plato, and the other Socratics, with those who sprung from them'

These passages are almost identical, except that the relative clause is dependent on a matrix clause in the subjunctive in the former, in the indicative in the latter. Therefore the selection is likely to be due to purely syntactic causes, unless a different attitude by Cicero is assumed, namely to present the disciples as [−DEFINITE, −SPECIFIC] in the former case and [+DEFINITE, +GENERIC] in the latter (Section 1.4.2).[13]

12. The term *attractio* – made popular by the Port-Royal Grammar, which takes it from a usage of *traho* by the sixteenth-century grammarian Sanctius – hardly fits a syntactic explanation of subjunctive selection in dependency on an infinitive. It should also be considered that modal attraction does not take place in dependency on a historical infinitive.

13. In this regard see Lavency (1998: 68), who lists some passages where the lack of attraction in spite of favorable syntactic conditions is likely to be due to the definiteness of the entity referred to by the relative clause; cf. e.g., Cic. *epist.* 16,21,1: *timebam enim ne euenirent ea quae acciderunt*.

1.4.2. Subjunctive with a nonspecific value

To explain the selection of the subjunctive in the absence of obvious modality-based causes, Vester (1989) makes a distinction between the behavior of restrictive and nonrestrictive relative clauses.

According to her, selection of the subjunctive in restrictive relative clauses is determined by purely semantic causes.[14] If we consider the following schema, we note that subjunctive is selected in restrictive relative clauses marked by the features [−DEFINITE, −SPECIFIC] only (Table 2).[15]

Table 2. Definiteness, specificity, and mood selection

	ind.	subjunc.
+definite (±generic)	+	−
−definite, +specific	+	−
−definite, −specific	−	+

The four possible combinations are shown in the following examples ([+DEFINITE, −GENERIC] (12), [+DEFINITE, +GENERIC] (13), [−DEFINITE, +SPECIFIC] (14), [−DEFINITE, −SPECIFIC] (15)).

14. Vester's (1989) analysis – within the framework of Functional Grammar – aims to show that in restrictive relative clauses the subjunctive is a term operator, i.e., a marker of a feature of the noun phrase the relative clause belongs to. Indeed, she considers not only truly restrictive clauses that modify a lexical head (Section 2.1.1) to be restrictive relative clauses, but also what she calls "head of the NP" (i.e., a pronominal or free relative clause), and also what she defines as "Subject Complement" (i.e., a relative clause functioning as a predicate with an equative copula). This way she puts together restrictive relative clauses and relative clauses with a semantics which is neither restrictive nor appositive (Section 2.2.4).
15. Vester's (1989: 335–336) definitions of definiteness, genericness, and specificity are based on Hawkins (1978) and Lehmann (1984: 259–261). It is noteworthy that Vester (1989: 335) makes it clear that the notion of definiteness is useful for Latin in spite of the lack of articles in this language. By specificity she means the use of a noun phrase if the speaker may know which individual is being referred to, whereas the hearer does not. A noun phrase is used nonspecifically if neither speaker nor hearer has a particular referent in mind. Genericness is a special case of nonspecificity which concerns definite noun phrases; it is distinct from the latter because inclusive reference now ranges over a whole class of potential referents.

(12) Caes. *Gall.* 1,10,3: *ob eas causas ei munitioni quam fecerat T. Labienum legatum praeficit*
'for these reasons he appointed Titus Labienus, his lieutenant, to the command of the fortification which he had made'

(13) Cic. *Phil.* 8,10: *scelerum enim promissio et eis qui exspectant perniciosa est et eis qui promittunt*
'for the promise of what is criminal is pernicious both to those that expect and to those that promise'

(14) Cic. *Verr.* II 1,122: *quam rem etiam tribunus plebis in contione egit, cum eum quem iste uirgis ceciderat in prospectum populi Romani produxit*
'the thing was brought before a public meeting by a tribune of the plebs, who then produced before the eyes of the Roman people a man whom he had flogged'

(15) Cic. *S. Rosc.* 56: *ei qui hunc accuset possim aliquo modo ignoscere*
'I could, to some extent, pardon one who accuses him'

The first two examples of (12)–(15) have definite relative clauses – that is, relative clauses that select the totality of objects or mass within a set which satisfy the referring expression (inclusive reference). This does not occur in the next two examples: (13) is different from (12) in that inclusive reference ranges over a whole class of potential referents; (15) diverges from (14) because in the former neither speaker nor hearer has a particular referent in mind, whereas in the latter the speaker has.

The idea that the subjunctive is employed to mark nonspecificity substantially includes the more articulated distinction by Lavency (1998), who claims that subjunctive in restrictive relative clauses expresses *référence indéterminée* and *qualification*.[16] Indeterminate reference (Lavency 1998: 34–

16. Vester (1989: 330) herself affirms the compatibility of her proposal with Lavency's (1981) perspective. Lavency (1998) also applies his distinction to relative clauses both with (*épithètes*) and without (*nominalisées*) a lexical head.

35, 40, 65–67, 69–71) is contrastively exemplified against determinate reference in (16) (an indeterminate vs. a determinate king).

(16) Cic. *Rab. Post.* 6: *non enim latroni, sed regi credidit, … nec ei regi qui alienus ab hoc imperio esset, sed ei quicum foedus feriri in Capitolio uiderat*
'for he was lending it not to a robber, but to a king; nor to a king who was a stranger to this empire, but to one with whom he had seen a treaty made in the Capitol'

Qualification may be descriptive (Lavency 1998: 42–43) or generic (Lavency 1998: 44–46, 71–74). It is descriptive when it describes referents without selecting them in the reality of discourse (17); it is generic when it defines indeterminate subsets of beings or things (18).

(17) Cic. *Catil.* 4,24: *habetis eum consulem qui et parere uestris decretis non dubitet et ea quae statueritis, quoad uiuet, defendere et per se ipsum praestare possit*
'you have a consul who will not hesitate to obey your decrees, and who will be able as long as he lives, to defend what you decide on and of his own power to execute it'

(18) Caes. *Gall.* 1,27,3: *eo postquam Caesar peruenit, obsides, arma, seruos, qui ad eos perfugissent, poposcit*
'when Caesar arrived at that place, he demanded hostages, their arms, and the slaves who had deserted to them'

Nevertheless, these values cannot always be easily distinguished from one another or from simple modal and factual values.

1.4.3. The subjunctive in adverbial relative clauses

According to Vester (1989), subjunctive is an overt marker of a syntactic function in nonrestrictive relative clauses, since it distinguishes what she calls the "nonrestrictive attribute" from the *praedicativum*. This is a difference which can be assumed on the basis of the similarity in function between relative clauses and adjectives/participles (Section 1.5.1).

(19) Caes. *Gall.* 2,3,1: *Remi, qui proximi Galliae ex Belgis sunt, ad eum legatos Iccium et Andecumborium, primos ciuitatis, miserunt*
‘the Remi, who are the nearest of the Belgae to [Celtic] Gaul, sent to him Iccius and Andecumborius, the principal persons of the state, as their ambassadors’

(20) Cic. *Verr.* II 1,140: *iste, qui aliquanto plus cogitasset, male accipit uerbis Habonium*
‘he, who had expected a good deal more, receives Habonius with harsh language’

In (19), the relative clause, being nonrestrictive, does not function as an identifier of a referent, but forms a second predication; that is, it elaborates additional information (Section 2.1.1), which in this case is completely centered on the head noun, as if it were an appositive. This is an instance of a nonrestrictive attribute. In these conditions, a relation of modification may arise between the relative clause and the main predication (*praedicativum*). This means that a clause which syntactically is a relative behaves semantically like an adverbial; this is why predicative relative clauses are traditionally called adverbial relative clauses. According to Vester (1989: 333–334), the subjunctive marks exactly this relation between the relative clause and the main predication. It is an unspecified semantic relation, whose specific interpretation, similarly to what happens with the so-called *participium coniunctum*, is dependent on context and situation.[17] A casual reading ((20): who had expected a good deal more > because he had expected a good deal more)[18] or a concessive one (21) is usually chosen.

17. Regarding the equivalent of postposed relative clauses (“postposées à un ensemble clôturable en phrase”, Section 4.3), Lavency (1998: 13–14) speaks of a function of *complément de phrase*, in which the subjunctive would mark subordination and give the relative clause a rhematic status. This way *compléments de phrase* would be distinguished from relative connection (Section 4.3.1). The logical relation which holds between the matrix clause and the relative clause can be specified by such adverbs and conjunctions as *ut* (*qui*), *utpote* (*qui*), *quippe* (*qui*), *tamen*. This type of relative clause would be in complementary distribution with clauses introduced by *cum* + subjunctive, since the latter would occur in narrative texts, the former in argumentative ones (Lavency 1998: 18, 114–116). On the adverbial value of relative clauses in the subjunctive see also Touratier (1980: 341–347) and Lehmann (1984: 324–325).

(21) Cic. *de orat.* 1,82: *namque egomet, qui sero ac leuiter Graecas litteras attigissem, tamen cum pro consule in Ciliciam proficiscens uenissem Athenas, compluris tum ibi dies sum propter nauigandi difficultatem commoratus*
'for I myself, who began very late in life to study Greek, and then attained only to a smattering of it, yet, after I had come to Athens as a proconsul, in my road to Cilicia, was stopped there a good many days, because the seas were then dangerous'

If the relative clause is the protasis of a hypothetical sentence, it has the same moods and tenses as a nonrelative protasis, namely the present subjunctive for potentiality in the present and the imperfect for potentiality in the past (22) or counterfactuality.

(22) Cic. *Verr.* II 4,52: *qui videret equum Troianum introductum, urbem captam diceret*
'he who saw it would have said that the Trojan horse had been introduced, and that the city was taken'

This use of the subjunctive is especially frequent in Classical Latin,[19] whereas the subjunctive with a nonspecific value in restrictive relative clauses can be found throughout the history of Latin. Exceptions are relative clauses with a purpose value ((7) above), which cannot be in the indicative since their meaning is conveyed precisely by the volitional feature of the subjunctive.[20]

As for the consecutive value, Vester (1989: 329) remarks that relative clauses traditionally regarded as consecutive are actually restrictive relative

18. All relative clauses in the subjunctive which co-occur with a demonstrative element are to be regarded as nonrestrictive, based on the [+SPECIFIC] value of the demonstrative pronouns *hic*, *iste*, *ille* (Orlandini 1989): see Vester (1989: 341–342).
19. However, compare cases of adverbial relative clauses with the indicative still in the classical period, e.g. Cic. *Phil.* 8,19: *Caesar ipse qui illis fuerat iratissimus tamen propter singularem eius ciuitatis grauitatem et fidem cotidie aliquid iracundiae remittebat: te nulla sua calamitate ciuitas satiare tam fidelis potest?*
20. See among others Ernout & Thomas (1953: 336); see also Elerick (1985) on the alternation with *ut*, and Lavency (1998: 25–26) on the purpose reading of predicative relative clauses governed by such verbs as *mitto*, *uenio*, and so on. Concerning the use of the subjunctive in relative clauses through the history of Latin, Lavency (1998: 32–33) remarks that in the *Bellum Hispaniense* and in late authors, hypercorrections can be detected.

clauses, where the subjunctive has a [−DEFINITE, −SPECIFIC] value or, in more traditional terms, a "characterizing" one ((15) above: *ei qui* 'one who = one such that').[21]

1.5. Relative clauses without a finite verb

In Latin there are cases where the relative pronoun introduces a structure without a finite verb, as in (23)–(26).

(23) Plaut. *Stich.* 649: *saluete, Athenae, quae nutrices Graeciae*
'hail! Athens, thou nurse of Greece!'

(24) Cic. *Att.* 12,38,1: *ita enim significarat iis litteris quas ad me*
'for that seemed the meaning of the sentence in his letter to me'

(25) Tac. *ann.* 4,24,3: *quattuor agmina parat, quae legatis aut tribunis data*
'equipped four columns, under the command of his lieutenants and tribunes'

(26) Cic. *Lael.* 28: *quis autem est, qui Tarquinium Superbum, qui Sp. Cassium, Sp. Maelium non oderit?*
'on the other hand, who is there that does not hate Tarquinius Superbus, Spurius Cassius, Spurius Maelius?'

If cases such as these are quite common (Kühner 1912, 1: 12), excerpts like (27), where this mechanism seems to go to extremes, are extremely rare, at least in classical prose:

21. Vester (1989: 329) disputes, in particular, Iordache (1977), who regards the consecutive value as the original value of the subjunctive, from which others would develop on the basis of contextual factors. On the characterizing value of the subjunctive in relative clauses see e.g. Lavency (1998: 45). On the other hand, it should be taken into account that sometimes a consecutive reading is supported by the presence in the matrix clause of correlative elements normally used with *ut*, such as *talis*, *tam*, *eiusmodi*; cf. e.g. Cic. *Verr.* II 1,50: *responsum tulerunt eius modi querimonias, quae ad legatum populi Romani pertinerent, non ad praetorem sed Romam deferri oportere*.

(27) Varro *ling.* 5,58: *Terra enim et Caelum, ut ⟨Sa⟩mothracum initia docent, sunt dei magni, … neque, ut uolgus putat, hi Samot⟨h⟩races dii, qui Castor et Pollux, sed hi mas et femina et hi quos augurum libri scriptos habent sic 'diui qui potes' pro illo quod Samot⟨h⟩races 'theoe dynatoe'*
'for Earth and Sky, as the mysteries of the Samothracians teach, are Great Gods, and they are not, as the populace think, the Samothracians gods, who are really Castor and Pollux; but there are a male and a female, there are those whom the Books of the Augurs mention in writing as "potent deities" for what the Samothracians call "powerful gods" '

Benveniste (1957) comments on these cases in Varro by regarding them as survivals of the origin of the relative pronoun from a noun or adjective determiner which became a clause determiner, a kind of nominalizer (Section 1.3.3, and n. 8). Without refuting this diachronic account in detail, Touratier (1980: 467–482) prefers a synchronic explanation. First of all, he remarks that all these phenomena of omission of the verb can occur in main clauses too, so they are not peculiar to relative clauses and do not cast doubt on the relative nature of the latter. He then recalls that Latin grammarians already distinguished phenomena of verb omission in cases of brachylogy, owing to a desire to avoid repetition ((26), by gapping of *oderit*), and cases of ellipsis proper, which are not bound to syntagmatic explanations ((23)–(25)). Cases of the latter type range from the omission of *sum*, both as an auxiliary (25) and as a copula (23), to the omission of *verba dicendi* or *faciendi*, up to the omission of verbs of movement, like *mittere* (24). For at least some of these cases Touratier (1980: 480–482) prefers to speak of "nominal relatives", since verb ellipsis is not necessary for predication. In case of the absence of *sum* as an auxiliary (25), however, one should rather think of "verbal relative clauses", because of the presence of nonfinite verbs.[22]

22. See Seiler (1960) for a distinction between nominal and verbal relative clauses in Avestan; on the presence of nominal sentences in Latin (and Greek) see, e.g., Meillet & Vendryes (1966: 594–598).

In other cases, the co-occurence of a relative pronoun and a nonfinite verb is due to the phenomenon of the intersection of the relative clause with other subordinate clauses (Section 3.2.2), in particular with the ablative absolute.[23]

(28) Cic. *Mil.* 32: *atqui Milone interfecto Clodius haec adsequebatur, ... ut eis consulibus praetor esset quibus si non adiuuantibus, at coniuentibus certe speraret se posse eludere in illis suis cogitatis furoribus*
'and, if Milo were slain, Clodius gained this, that he should have those men for consuls while he was praetor, who, if they did not aid him, would at all events connive at all his proceedings to such an extent that he hoped he should be able to escape detection in all the frantic actions which he was contemplating'

An entirely different question is the functional concurrence between participles which do not co-occur with relative pronouns and relative clauses introduced by relative pronouns (Section 1.5.1).

1.5.1. Participles and relative clauses

Relative clauses and participles functionally overlap to a large degree. According to Croft (1991: 67), this functional similarity can be traced back to the fact that relative clauses and participles are nonprototypical parts of speech, which function as modifiers – a function prototypically performed by adjectives – even if from the point of view of their lexical-semantic class they are actions, the prototypical category for which is the verb.[24] Participles

23. On this subject see e.g. Touratier (1980: 428), Lavency (1998: 91–93); cf. Cic. *Lael.* 5 (*tota disputatio est de amicitia, quam legens te ipse cognosces*) for a case with a conjunct participle.
24. In order to give a crosslinguistically valid definition of the categories of nouns, adjectives, and verbs, Croft (1991: 53) refers to the concept of markedness. Two functional parameters, each having three values, define this concept: traditional lexical-semantic classes (objects, properties, and actions) and pragmatic functions (reference, modification, and predication). Nouns, adjectives, and verbs are the unmarked combinations of the two parameters, i.e. prototypical categories. The nonprototypical parts of speech are positioned at the other intersections of the two parameters and display markedness phenomena. On the participle as a nonprototypical category see Pompei (2006).

are in fact verbal adjectives (see e.g. Crystal 1985 s.v. participle) and relative clauses are modifiers with a clausal nature, which makes them basically verbal or at least provided with a predicative nucleus.

To show the overlap between relative clauses and participles in Latin, Lavency (1998: 35, 59) compares ((29)–(30)) and ((31)–(32)).[25] The functional equivalence between participles and relative clauses is further shown by excerpts where the two structures are coordinated (33).

(29) Caes. *Gall.* 7,57,1: *id est oppidum Parisiorum, quod positum est in insula fluminis Sequanae*
'this is a town of the Parisii, which is situated on an island in the river Seine'

(30) Caes. *Gall.* 7,58,3: *id est oppidum Senonum in insula Sequanae positum, ut paulo ante de Lutecia diximus*
'this is a town of the Senones, situated on an island in the Seine, as we have just before observed of Lutetia'

(31) Caes. *Gall.* 2,15,4: *nihil pati uini reliquarumque rerum ad luxuriam pertinentium inferri*
'they suffered no wine and other things tending to luxury to be imported'

(32) Caes. *Gall.* 3,9,3: *ea quae ad usum nauium pertinent prouidere instituunt*
'(the Veneti) resolve to provide those things which appertain to the service of a navy'

(33) Plin. *nat.* 17,105: *praeterea ut praegnates, hoc est germinatione turgentes et qui parere illo sperauerint anno*
'in addition to this, the graft ought to be in a state of impregnation, that is to say, swelling with buds, and giving every promise of bearing the same year'

25. The concurrence of relative clauses and participles is also shown by the presence of two readings for (29), the reading with a relative clause chosen by the Oxford edition and by Constans for the *Belles Lettres* edition, quoted by Lavency (1998: 35), and the reading with a mere participle (*positum in insula fluminis Sequanae*), chosen by Seel, who, however, comments 'incertum tamen', for the Teubner edition.

The participle's ability to compete with relative clauses is due to its semantic-syntactic function. Participles with an attributive restrictive function – that is, a function which is needed to establish the reference of a nominal head ((31), (34); Section 2.1.1) – doubtless overlap with relative clauses to a certain degree ((31) vs. (32)).

(34) Cic. *epist.* 2,9,1: *primum tibi, ut debeo, gratulor laetorque cum praesenti tum etiam sperata tua dignitate*
'first of all, as in duty bound, I congratulate you and express my delight at the rank which you have already attained, and your hopes of advancement in the future'

Another class of participles which enter into competition with relative clauses, especially with relative clauses without a lexical head (Section 2.2), are participles which are converted into a noun – that is, participles that do not function as modifier, but directly perform a function of reference. Compare (35) with (32).

(35) Plin. *nat.* 23,7: *nunc ad medicinam de eo pertinentia indicabimus*
'we shall now proceed to speak of its medicinal properties'

As to the function Vester (1989) calls a nonrestrictive attribute (Section 1.4.3) – that is, the modification of a nominal head which is not needed to establish a reference (Section 2.1.1) – a comparison between (29) and (30) shows that concurrence between relative clauses and participles is also possible in this case. As happens with nonrestrictive relative clauses, for participles too this is a function where modification basically consists of a second predication, elaborating additional information, which is completely centered on the head noun as if it were an appositive. Analogously, in these conditions a relation of modification may arise between participles and the main predication, or the main predicate. Therefore, there can be a true *praedicativum* in Vester's (1989) terms; that is, a participle with an adverbial value.[26] Of

26. On the adverbial – or converbial – nature of predicative participles, in particular the so-called *participium coniunctum*, see Pompei (forthcoming). Other predicative structures of participles have no possibility of competition with relative clauses in Latin: they are the ablative absolute – which by definition is *ab-solutus* from the matrix clause and therefore

course, in this case participles can compete with adverbial relative clauses (Section 1.4.3), as is shown by comparing (36), where the participle can receive a concessive semantic interpretation, with (21) above.

(36) Cic. *ac.* 1,3: *et ego 'Ista quidem' inquam 'Varro iam diu expectans non audeo tamen flagitare'*
'at this I said, "As for that work of yours, Varro, even though I have been waiting for it a long time now, I don't venture to demand it"'

While the adverbial value of relative clauses is marked, at least in the classical period, by the selection of the subjunctive, with participles it is often extremely difficult, if not impossible, to disambiguate between a sheer nonrestrictive and an adverbial (e.g., temporal) interpretation, if there are no conjunctions or adverbs which help to interpret the logical relationship between participle and matrix clause, like *tamen* in (36).[27] This happens with the participle *adgressi* in (37).

(37) Caes. *Gall.* 1,25,6: *capto monte et succedentibus nostris Boii et Tulingi, qui hominum milibus circiter XV agmen hostium claudebant et nouissimis praesidio erant, ex itinere nostros ⟨ab⟩ latere aperto adgressi circumuenerunt. Id conspicati Heluetii, qui in montem sese receperant, rursus instare et proelium redintegrare coeperunt*
'when the mountain had been gained, and our men were advancing up, the Boii and Tulingi, who with about 15,000 men closed the enemy's line of march and served as a guard to their rear, having assailed our men on the exposed flank as they advanced, surrounded them. Upon seeing which, the Helvetii, who had betaken themselves to the mountain, began to press on again and renew the battle'

In this excerpt, *adgressi* seems to have, rather than a temporal value, the function of a medial verb, since it helps to encode complex states of affairs

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does not satisfy the requirements of the relative construction – and participles selected by the governing verb, as in the constructions of *Accusativus cum Participio* dependent on verbs of perception. Likewise, participles inserted as predicates in periphrases cannot compete with relative clauses.

27. Conjunctions can co-occur with adverbial participles from the classical period on; see, e.g., Ernout & Thomas (1953: 284–285).

which are formed by several events.[28] From the point of view of information structure, in this case the participle is foregrounded together with the main predication, while participles with an adverbial function – like *conspicati* in the following clause, but also the ablatives absolute which open the excerpt – as a rule encode background information. The opposition between encoding foreground or background information also distinguishes the nonrestrictive participle *adgressi* from the nonrestrictive relative clause *qui … erant*.

On the other hand, the sheer nonrestrictive value of the participle is excluded if there is no phonetically realized head to be modified (38), since under these conditions the modification can no longer be centered on the head noun.

(38) Cic. *S. Rosc.* 97: *occisus est a cena rediens*
'he was slain returning home from supper'

In such cases, concurrence with relative clauses disappears, since a relative clause without a lexical head is a free relative clause, and a free relative clause as a rule has a referential value (Section 2.2.4).

Other clear differences with relative clauses must be sought in the reduced clausal expansion of participles (Section 3.3.6), which often lends itself to real lexicalization, as in the case of the participles *praesens* and *speratus* in (34).

Therefore, relative clauses in Latin seem to be balanced between adjectival and verbal nature better than participles are. Moreover, in comparison to languages such as Greek, the Latin participle system appears defective; this implies an expansion of relative clauses in some functional areas which should be occupied by passive present participles (39) and past active participles (40).[29]

28. On the possibility of employing nonrestrictive participles as medial verbs, in particular in Ancient Greek, see Pompei (2006).

29. That in (39) the participle *angustata* occurs in the same sentence where 'inhabited by you' cannot be expressed through a participle can be explained by the fact that *angustata* has a stative, not a passive, value, i.e., it does not encode a process, but the resulting state. The encoding by a participle of an action which is anterior and oriented to the agent is possible with deponent verbs.

(39) Cic. *rep.* 6,21: *omnis enim terra, quae colitur a uobis, angustata uerticibus, lateribus latior, parua quaedam insula est*
'for the whole earth inhabited by you is as it were but a little island, narrow at both ends and wide towards the middle'

(40) Cic. *Manil.* 55: *nos qui antea non modo Italiam tutam habebamus sed omnis socios in ultimis oris auctoritate nostri imperi saluos praestare poteramus, … etiam Appia iam uia carebamus*
'we, who formerly had not only all Italy in safety, but who were able by the authority of our empire to secure the safety of all our allies in the most distant countries, we were cut off even from the Appian road'

This is why Ernout & Thomas (1953: 333) claim that, in Latin, relative clauses are widely employed "suppléant … la pauvreté de la langue en participes".

2. Phenomenology of the pivot in the matrix clause and semantics of the relative clauses

According to de Vries's (2002) typological definition, the relativization process is produced with respect to a pivot; that is, an element semantically shared by the matrix clause and the relative clause (Section 1.2.1). In both clauses, the pivot may be realized as a full noun (lexical head) or represented by a pronoun, or may even be phonetically null. The typology of realization or representation of the pivot within relative clauses is quite complex (Section 3.3). As to the form of the pivot within the matrix clause, there are basically two distinct cases: either it can be expressed by a lexical head (Section 2.1), or it can be represented by a pronoun or even be missing (Section 2.2).

To refer to the pivot in the matrix clause, the term "antecedent" is often used. As Touratier (1980: 111–112) remarks, this term is misleading since an antecedent precedes by definition the element that resumes it, while what is usually called antecedent in Latin often follows the relative clause, particularly in the case of prenominal relative clauses (Section 4.2); because of such problems, Tesnière (1966: 87) proposes the term *source sémantique* for

anaphoric relations in general. Touratier prefers, however, to keep the term *antécédent*, since, even if it does not necessarily precede the relative clause in linear order, it always precedes it in the syntactic structure, “la relative étant une expansion du noyau qu’est l’antécédent”.[30]

According to Touratier (1980: 113–127), the different types of antecedents include nouns – common or proper nouns and adjectives used as nouns, possibly with determiners and argumental or adjunct expansions – and pronouns (Section 2.2.1).[31] To illustrate the occurrence of anaphoric and demonstrative pronouns as antecedents, he quotes (41)–(42).

(41) Cic. *Phil.* 10,4: *cur eos, quos omnes paene uenerari debemus, solus oppugnas?*
‘why do you alone attack those men whom we are all bound almost to worship?’

(42) Cic. *Lael.* 21: *uirosque bonos eos, qui habentur, numeremus, Paulos, Catones, Galos, Scipiones, Philos*
‘we would number on the list of good men those who are commonly so regarded, – the Pauli, the Catos, the Gali, the Scipios, the Phili’

In (41), *eos* can in fact be anaphoric, since it refers to the Bruti, Decimus and Marcus, who are mentioned in the immediately preceding sentence. Therefore, without being a true *source sémantique*, namely a referential expression, it is a pronoun which is coreferential with a proper noun and in

30. This is Touratier’s definition (1980: 118) of the antecedent: “l’antécédent peut être défini comme le syntagme nominal auquel se rattache la subordonnée relative et dont le pronom relatif reprend le contenu sémantique”. The word *antécédent* is also adopted by Lavency (1998: 3), who explicitly deprives it of any reference to linear position with respect to the relative clause and defines it as an “élément (pro)nominal, lexicalisé ou non, qui impose régulièrement au pronom relatif son genre et son nombre”.

31. In Latin, the antecedent can also be an adverb, e.g. *ibi*, resumed by *ubi* in the relative clause; Touratier (1980: 119–120) traces this case back to a nominal antecedent, since he regards such an adverb as an *amalgame* of a preposition + noun phrase which makes up an archilexeme – that is, a kind of hyperonym which refers to all the semantic fields of place nouns – and thinks that the level of attachment of the relative clause is the noun or the noun phrase. On the other hand, Touratier (1980: 452–462) denies that a clause introduced by *qui quae quod* after adjectives like *dignus*, *indignus*, *aptus*, *idoneus* is a true relative clause and considers it rather a completive, that is, an argumental clause; Lavency’s position (1998: 78–80) is different.

reference tracking lies between the true *source sémantique* and the relative pronoun. In other words, in this excerpt *eos* can have a specific semantic content – smaller, however, than the *cognomen Bruti* or a common noun like *terra* or a deictic like *nos* in (39)–(40). On the contrary, in (42), *eos* has no referential function whatsoever, since it is outside reference tracking because of its cataphoric position. Indeed, it appears to perform the function of a syntactic place marker, since it marks the structural function that the pivot would have if it were realized as a full noun.[32]

Therefore, the antecedent does not always coincide with the *source sémantique*, and sometimes a kind of mismatch occurs between semantic and syntactic dependency. For this reason Lehmann (1984: 44–45) prefers to keep the two concepts separate and speaks of *Bezugsnomen* for the syntactic aspect and *Nukleus* for the semantic aspect.[33] In this framework, the choice of the term *pivot* is due to the fact that it is an operational concept, since it answers the need to detect a variable which coindexes the relative clause and the matrix clause.

The realization of the pivot as a *source sémantique* or – to stick to current terminology – as a "lexical head" can happen either in the matrix clause or in the relative clause (Section 2.1); if it happens in the matrix clause, a full coincidence between semantic and syntactic dependency obtains, otherwise it does not.[34] Where a lexical head is lacking (Section 2.2), if a pronominal

32. In this regard see Vester (1989: 342), who speaks of "a kind of nominalizer which is used only to carry casemarking"; see Touratier (1994: 628–629), who in cases like *id quod uult* remarks that "l'antécédent *id* n'a pas une valeur anaphorique, son rôle étant de transformer la relative *quod vult* en un SN, c'est-à-dire de faire correspondre à un ensemble … la propriété signifiée par la relative"; see also Touratier (1980: 129–146), Lehmann (1979: 16; 1984: 308–310), and Lavency (1998: 57) for a discussion of the function of the so-called pronominal antecedent as a dummy element or a determiner.
33. According to Lehmann (1984: 44), however, the *Bezugsnomen* always coincides with *Nukleus*, so it is basically a lexical head; otherwise in his opinion the relative clause is without a *Bezugsnomen*, in two possible variants, with a pronominal *Nukleus* or without a *Nukleus* (Lehmann 1984: 293–304). Lehmann (1984: 44 n. 2) rejects the terms "antecedent", "head", and also *Leitnomen*, used in Semitic studies, since all these words would assume linear precedence with respect to the relative clause.
34. To denote the realization of the pivot as a lexical head, de Vries (2002: 14–15) speaks of "spell out", consistent with the terminological tradition of the generative syntactic approach he follows. According to him, when the pivot is realized as a lexical head

representative is available in the matrix clause (Section 2.2.1), the two types of dependency coincide if the pronoun is truly anaphoric or deictic; otherwise the *source sémantique* should be found in the relative clause, as also occurs where a pronoun is lacking in the matrix clause (Section 2.2.2).[35] A case where, in the presence of a cataphoric pronoun or lack of a pronoun, the *source sémantique* should not be looked for in the relative clause is when a relative clause introduced by *quod* or *id quod* resumes the semantic content of the whole matrix clause.[36]

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within the relative clause, "The matrix contains the gap, which is filled by the whole relative construction … [concerning circumnominal relative clauses: Section 4.5] or – if the relative clause is preposed – by a demonstrative" (Section 4.1).

35. In this case, if in the matrix clause a cataphor is realized, it performs the function of a syntactic place marker (n. 32); if no explicit cataphor is present, the problem is to establish whether a null cataphor should be supposed or not; that is, whether the relative clause is free or pronominal (Section 2.2.3). In both cases, from a semantic point of view the relative clause does not include a lexical head; in Latin the selection of the relative pronoun answers, however, the need to realize some semantic features, at least animacy and number.

36. See e.g. Caes. *Gall.* 5,33,1: *haec tamen ipsa timide atque ut eum omnia deficere uiderentur, quod plerumque iis accidere consueuit qui in ipso negotio consilium capere coguntur* for *quod* and Cic. *Catil.* 1,20: *non referam, id quod abhorret a meis moribus* for *id quod*. In this case, there seems to be a coincidence between syntactic and semantic dependency. A relative clause which resumes the semantic content of a whole matrix clause often precedes it, with prolexis: cf. e.g. Cic. *Lael.* 23: *quocirca et absentes adsunt et egentes abundant et inbecilli ualent et, quod difficilius dictu est, mortui uiuunt* for *quod* and Cic. *epist.* 15,10,1: *peto a te, id quod facillimum factu est … ut quam honorificentissimum senatus consultum litteris meis recitatis faciendum cures* for *id quod*. Lavency (1998: 82) remarks that this kind of relative clause, which modifies a whole clause as an appositive, should not be confused with the use of clauses with the same internal structure – that is, without a lexical head – but with an argumental function, as in Caes. *Gall.* 4,32,2: *Caesar id quod erat suspicatus, aliquid noui a barbaris initum consili* … ; in this case the appositive is the following clause. A case similar to clauses introduced by *quod* or *id quod* which resume the semantic content of the whole matrix clause is the resumption of a noun which identifies a unique referent through a relative clause introduced by a form of *is* or pronouns with analogous functions, as happens e.g. in Cic. *Cato* 10: *ego Q. Maximum, eum qui Tarentum recepit, senem adulescens ita dilexi ut aequalem*; also in this case, modification is nonrestrictive (Section 2.1.1; see Lavency 1998: 29).

2.1. Lexical head

By *lexical head* we mean the realization of the pivot as a referential expression – that is, a full noun. When the pivot is realized outside the relative clause we speak of an *external head*, whereas when it is found within the relative clause it is an *internal head* (Section 3.3.1).[37] In Latin both types are present, but diachronically a greater and greater diffusion of external-headed relative clauses occurs (Section 5.1). In preposed (Section 4.1), postposed (Section 4.3), and postnominal (Section 4.4) relative clauses there can even be reduplication of the head, although preposed relative clauses are internal-headed and postposed and postnominal relative clauses are external-headed. Prenominal relative clauses (Section 4.2) are external-headed and are the only case in which the external head follows the relative pronoun. That is, the external head usually is an antecedent. By definition circumnominal relative clauses (Section 4.5) are always internal-headed (Table 3).

37. A concept often used in Latin linguistics for internal-headed relative clauses is "incorporation of the antecedent". In this regard see Lavency (1998: 97–101), who speaks of *"insertion" de l'antécédent dans la PR [proposition relative]*, with an emphatic value; Kühner & Stegmann (1914, 2: 309–311) and Hofmann & Szantyr (1965: 564) speak of *Hineinziehung des Beziehungswortes in den Relativsatz*; see also Touratier (1994: 631–632) for a discussion. The definition of "incorporation" reflects a vision linked to the idea of "true antecedent", i.e., an element outside the relative clause; it does not take into account the diachronic development (Section 5) or the great complexity in the realization of the pivot from a typological point of view, since the pivot can doubtless appear as a lexical head within relative clauses (Section 3.3.1). Likewise, in cases like Cic. *Verr.* II 4,63: *mittit rogatum uasa ea quae pulcherrima apud eum uiderat* or Cic. *de orat.* 3,8: *eam ciuitatem, in qua ipse florentissima multum omnibus (gloria) praestitisset*, the definition "partial incorporation of the antecedent" is sometimes used, since the adjective within the relative clause, as a rule in the superlative degree, is regarded as an insertion by extraposition from the noun phrase of the external head; these cases can usually be explained as appositives of the relative pronoun or as predicatives (see Lavency 1998: 103–104; Kühner & Stegmann 1914, 2: 311–313; Touratier 1994: 632–633 for discussion).

Table 3. Types of relative clause and position of the lexical head

	preposed	prenominal	circumnominal	postnominal	postposed
external head	–	+	–	+	+
internal head	+	–	+	–	–
reduplication	+	–	–	+	+

The lexical head may be accompanied by a determiner, in most cases *is* (44). The determiner is absolutely necessary with the reduplicated head in the presence of preposed relative clauses; conversely, the occurrence of an element such as *is* is optional in all other cases, and extremely rare with circumnominal relative clauses (124). In the latter case, it is separated from the lexical head since it precedes the relative pronoun, as happens with prenominal relative clauses (107); in these cases, the analysis of this element varies between a determiner and a phoric element (n. 32).

2.1.1. Semantics of external-headed relative clauses

External-headed relative clauses have a modification function. The modification may be *restrictive* or *nonrestrictive* (i.e., appositive). It is restrictive when it helps to fix "the identity of what one is talking about … by narrowing the description"; it is nonrestrictive when it "provides a secondary comment (predication) on the head that it modifies, in addition to the main predication" (Croft 1991: 52).[38] From a crosslinguistic perspective, the distinction between restrictive and nonrestrictive relative clauses can be marked

38. In Croft's (1991: 52) terms, restrictive modification is accessory to the function of reference, nonrestrictive modification to predication. The distinction between restrictive and appositive (*determinative* and *explicative*) relative clauses goes back to Port Royal. On the concept of restrictivity in relative clauses see Lehmann (1984: 261–280) from a typological point of view, and Touratier (1980: 239–386). Both Lehmann and Touratier claim that the head of a restrictive clause is a noun, the head of a nonrestrictive one a noun phrase (according to Lehmann, 1984: 209, the internal head – and in general any form of realization or representation of the pivot in the relative clause – would also be a noun phrase). For a recent discussion of the opposition of restrictive vs. nonrestrictive relative clauses see among others the articles in Fuchs (1987), and de Vries (2002: 413–425), who summarizes the analyses which have been proposed from a structural point of view.

by suprasegmental features, such as intonation contours, or even by syntactic means; in English, for instance, *that* can occur in restrictive clauses only.

In Latin there are no such syntactic correlates of restrictivity. However, whether a relative clause is restrictive or nonrestrictive can be tentatively determined by a careful examination of the context and information structure, which makes it possible to understand if a relative clause is necessary or not to fix the reference of an entity. Of course, the clause is normally nonrestrictive if it modifies a noun or a pronoun which usually identifies a unique referent, as proper nouns ((3), (8), (19)) or personal pronouns (40) mostly do. According to Pinkster (1995: 101–102), a nonrestrictive reading is natural even when relative clauses include a sentence adverbial which expresses the judgment of the speaker/writer (43).[39] The co-occurrence of a cataphoric element such as *is* with an external lexical head, on the other hand, usually requires a restrictive reading ((44); Lavency 1998: 30-31; Vester 1989: 342).

(43) Liv. 29,34,9: *tegentibus tumulis, qui peropportune circa uiae flexus oppositi erant, occultus processit*
'his approach being concealed by some low hills which fortunately flanked his route'

(44) Caes. *Gall.* 3,17,2: *his praeerat Viridouix ac summam imperii tenebat earum omnium ciuitatum quae defecerant, ex quibus exercitum [magnasque copias] coegerat*
'over these people Viridovix ruled, and held the chief command of all those states which had revolted; from which he had collected a [large and powerful] army'

Therefore, many scholars think that restrictivity is relevant to Latin, too.[40] Moreover, examples such as (44) show that the position of nonrestrictive rel-

39. The reason fot this lies in the link between the structural complexity of an adverbial (satellite internal classification) and the level of modification, i.e., the layer of the clause to which the satellite is linked (satellite external classification); see Dik et al. (1990) and Dik (1997, 1: 225–232, 243–245, 297–299, 304–307).

40. On the validity of the notion of modifier restrictivity in Latin see Vester (1977); about Latin relative clauses in particular, see Touratier (1994: 624–626), Pinkster (1995: 80–81), and Lavency (1998: 26–57), who speaks of *propositions relatives compléments du nom, épithètes et adjoints*; Touratier (1980: 347) claims that this is the only logical–semantic distinction which really concerns the relative clause itself, unlike, e.g., subjunc-

ative clauses (*ex quibus ... coegerat*) as a rule is more external than the position of restrictive relative clauses (*quae defecerant*) with regard to the nuclear predication, which shows the different integration status.

As for the semantic value of relative clauses with an internal lexical head, they should be considered maximalizing relative clauses even if they are usually regarded as restrictive clauses (Section 2.2.4).

2.2. Pronominal and free relative clauses

When a lexical head is lacking, the pivot in the matrix clause can either be represented by a pronoun – as happened in ((20), (41)–(42)) or in (45) – or be missing (46); in the former case we speak of *pronominal relative clauses* (Section 2.2.1), in the latter of *free relative clauses* (Section 2.2.2).

(45) Caes. *Gall.* 4,26,4: *quos laborantes conspexerat, his subsidia submittebat*
'he sent (them) up to the assistance of those whom he had observed in distress'

(46) Cato *agr*. 70,2: *ieiunus siet qui dabit*
'he who administers the remedy must be fasting'

It is debatable whether the two constructions – pronominal and free relative clauses – are equivalent or not. From a syntactic point of view, pronouns mark above all the function of the pivot within the matrix clause (Section 2);

tive selection, which has been given much importance in the literature. Touratier (1994: 626) also makes it clear that the semantic difference between restrictive and nonrestrictive relative clauses in Latin is by no means coextensive with the opposition between indicative and subjunctive relative clauses: they rather intersect. In this respect, Vester (1989) distinguishes within appositive relative clauses, e.g., uses as a nonrestrictive attribute, in the indicative, from uses as a *praedicativum* or an adverbial, in the subjunctive (Section 1.4.3; see also Section 1.4.2). Relative clauses introduced by *quod* or by *id quod* which resume the semantic content of the whole matrix clause (n. 36) and are strongly parenthetical are also to be regarded as nonrestrictive attributes; in this case, subjunctive selection should be traced back to the expression of modality (Lavency 1998: 81; Section 1.4).

if this information can somehow be inferred from the context, they may be missing.

In the case of phoric elements, this implies that they may not occur when they would be inflected in the same case as the relative pronoun ((46): (*is*) *qui*). In lack of case coincidence the phoric element normally occurs in oblique cases (45) or when governed by a preposition; it may be missing when it is an easily recoverable verb argument; that is, when it would be a nominative (47) or an accusative.[41]

(47) Verg. *Aen.* 1,94–96: '*o terque quaterque beati, /quis ante ora patrum Troiae sub moenibus altis / contigit oppetere!*'
'three and four times happy are those who happened to die under Ilian walls before their parents!'

From a semantic perspective, many scholars claim that the realization of a phoric element may give free relative clauses a specific or determinate reference, but data do not seem to support this hypothesis fully (49).[42]

From a pragmatic point of view, the occurrence of a phoric element which is easily recoverable at the syntactic level may be due to reasons of information structure – for instance, a contrastive function (48) – together with metrical and/or stylistic reasons, as in (49). Here the lack of a phoric is followed, in a kind of chiasmus *variatio*, by its occurrence.

41. In lack of case coincidence, the phoric element is most often not realized even when the case of the relative pronoun is morphologically identical to what it would be if there were case coincidence (Caes. *Gall.* 4, 31, 2: *quae ad eas res erant usui ex continenti conportari iubebat*: *quae* Nom = *quae* Acc ≡ (*ea*) Acc); for such instances van Riemsdijk (2006) speaks of Case syncretism. Moreover, phoric elements may not occur even in oblique cases or as a complement of a preposition phrase if information is somehow recoverable from the context, e.g. from a previous sentence with an analogous structure (Liv. 21,45,5–6: *qui pecuniam quam agrum maluisset, ei se argento satisfacturum; qui sociorum ciues Carthaginienses fieri uellent, Ø potestatem facturum*).

42. In this regard Vester (1989: 342) clearly claims that *is qui* and *qui* are semantically equivalent, since *is* in itself is linked neither to the feature [± DEFINITE] nor to the feature [±SPECIFIC]; for a contrary opinion see e.g. Addabbo (2001: 163) and Lavency (1998: 59).

(48) Caes. *Gall.* 6,40,5–6: *hos subsecuti equites calonesque eodem impetu militum uirtute seruantur. At ii qui in iugo constiterant … iniquum in locum demiserunt*
'the camp attendants and the horse following close upon them with the same impetuosity, are saved by the courage of the soldiers. But those who had taken their stand upon the eminence had descended into an unfavorable situation'

(49) Ter. *Andr.* 920: *si mihi perget quae uolt dicere, ea quae non uolt audiet*
'if he persists in telling me what he likes, he'll be hearing things that he doesn't like'

2.2.1. Pronominal relative clauses

When the pivot in the matrix clause is represented by a pronoun, in principle it could be at least a phoric ((41)–(42), (45)) or a deictic ((20)–(21)) element. If it is phoric, it is necessary to determine how it fits within the mechanisms of reference tracking (Section 2) and whether it has an effective semantic content or not, and if so which one; the two questions are not distinct.

Indeed, cataphoric pronouns are dummy elements, which simply mark the position of the pivot within the matrix clause. In particular, if the phoric precedes an embedded relative clause (Section 3.4), we might think that its role is basically to mark the nominalization of the relative clause. This is true both when there is a lexical head within the embedded relative clause and when there is not such a head ((13), (124); Section 4.5). In both constructions, the whole semantic burden rests on the relative clause (Section 2.2.4).

On the contrary, anaphors are inserted within a reference tracking mechanism and for this reason they have a semantic content, at least to a certain degree (Section 2). Anaphors may occur first of all in case of prolexis – that is, after a left-adjoined relative clause (Section 3.4), whether it has a lexical head or not ((99), (45)); in both cases, the semantics rests entirely on the relative clause, of course with a resumption in the matrix clause through the anaphoric pronoun. Incidentally, this kind of anaphor cannot commute with a bare lexical head (Section 4.1). Anaphoric pronouns may also precede the relative clause, when they resume a previously introduced referent (41); in

this case the relative clause has an appositive value, so it just adds a second predication.

It is possible, however exceptional it is, for a cataphoric and an anaphoric pronoun to occur within one and the same relative construction (50). In such cases, the emptier of the two pronominal elements is the second one.

(50) Plaut. *Most*. 841: *haec quae possum, ea mihi profecto cuncta uehementer placent*
'these things which I can (see), really they do all please me mightily'

If the pivot in the matrix clause is represented by a deictic, it has an effective semantic content; therefore the relative clause is external-headed and appositive.

In Latin the default pronominal head is *is ea id*, but several other elements are sometimes listed for this function, from *hic*, *iste*, *ille* to *idem* and *ipse*, to personal, interrogative, and indefinite pronouns, up to floating quantifiers (Touratier 1980: 116–117). The syntactic and semantic commutability of some, or even many, of these elements with *is* is debatable; *is* seems, however, to be the absolutely emptiest pronoun from a semantic point of view, even with respect to *hic*, *iste*, and *ille*, which are thus usually more suitable as deictic pronouns, at least until *ille* diachronically replaces *is* in its functions (Section 5.4).[43]

43. In this regard see Lehmann (1984: 293–318), who considers dummy elements as *Bezugsnomen-Attrappe*, i.e., as pseudo-*Bezugsnomen*, but not as *Nuklei*, unlike other pronouns, which are pronominal *Nuklei*. De Vries (2002: 55) has a different opinion, since he regards Lehmann's pronominal *Nuklei* as belonging to a single category D together with determiners and quantifiers and defines "false free relatives" – or "semi-free relatives", following Smits (1988) – relative clauses introduced by a D head. According to Lehmann (1984: 309), *ille* would hold the second place in the dummy element hierarchy and would be more apt than *is* to express cataphora over long spans (cf. Plaut. *Mil*. 713: *ille miserrumum se retur, minimum qui misit mihi*). Fruyt (2003; 2005: 25, 35) remarks that in the evolution of Latin, instances of *is* tend to diminish in all functions, being replaced by *ille*. On the other hand, according to Lavency (1998: 64) the pronoun closest to *is* is *hic*, since manuscripts systematically waver between *ii* and *hi*, *iis* and *his*. From a syntactic point of view, it is rather difficult to claim that floating quantifiers share their status with phoric pronouns, as the possibility of co-occurence apparently shows (e.g., *omnia illa quae*). Indeed, even Touratier (1980: 154) remarks that *omnis*, together with *ipse* and *idem*, "ne fonctionnent pas comme antécédents".

The semantically emptiest pronouns – that is, cataphors – are, however, specified for the feature of animacy. The possible co-occurrence of *res* in neuter oblique cases is coherent with this interpretation.[44]

2.2.2. Free relative clauses

By definition, free relative clauses are outside the typological classification based on the position of the relative clause with regard to the lexical head and are also not very liable to the individuation of their position relative to the matrix clause (Section 3.4). Examples such as (51), however, show a substantial structural equivalence between lexical-headed and free relative clauses.[45]

(51) Caes. *Gall.* 4,31,2: *nam et frumentum ex agris cotidie in castra conferebat et, quae grauissime adflictae erant naues, earum materia atque aere ad reliquas reficiendas utebatur et quae ad eas res erant usui, ex continenti comportari iubebat*
'for he daily conveyed corn from the country parts into the camp, used the timber and brass of such ships as were most seriously damaged for repairing the rest, and ordered whatever things besides were necessary to be brought to him from the continent'

In this example a correlative (*quae* … *naues*, *earum*) (Section 4.1) is followed in a coordinate structure by a free relative clause (*quae ad eas res erant usui*); the lack of an anaphor in the matrix clause in this case can be linked to syntactic reasons (Section 2.2), although an embedded clause analysis might be possible. In cases like (52), the same parsing ambiguity appears between an embedded and a right-adjoined analysis of the free relative clause (Section 4.3).[46]

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44. From the point of view of reference tracking, *res* is a strategy of cohesion; it is a full noun, but it works as an encapsulator – that is, it has an extended reference; cf. e.g. Caes. *civ.* 1,24,1: *Pompeius his rebus cognitis, quae erant ad Corfinium gestae, Luceria proficiscitur*. In this regard see Lavency (1998: 63).
45. In this regard see de Vries (2002: 42): "Free relatives are relatives without an overt nominal head. All syntactic main types of relatives can be construed as a free relative."
46. In such a context an analysis of the relative clause as an extraposed embedded clause would also be acceptable: free linear order in Latin often makes it difficult to opt for one analysis or another.

(52) Cato *agr.* prol.: *amplissime laudari existimabatur qui ita laudabatur*
'one so praised was thought to have received the greatest commendation'

As for free relative clauses that are indisputably embedded within the matrix clause, it is difficult to determine their equivalence with a specific (circumnominal or adnominal: Sections 4.2, 4.4, 4.5) type, as comparing (53) with (54) and (55) with (56) shows.

(53) Plaut. *Capt.* 251: *iam ego reuertar intro, si ex his quae uolo exquisiuero*
'I shall return indoors soon, when I shall have discovered from these people what I want to know'

(54) Cato *agr*. 52,2: *hoc modo quod genus uis propagabis*
'you can layer any variety you wish in this way'

(55) Cato *agr.* 41,2: *uitem sic inserito: praecidito quam inseres*
'graft the vine as follows: cut off that which you are grafting'

(56) Cato *agr.* 41,3: *terebra uitem quam inseres pertundito*
'with an awl bore a hole through the vine which you are grafting'

2.2.3. Syntactic status of free relative clauses

Lavency (1998: 57) defines as *relatives nominalisées* both relative clauses with a cataphoric element – such as *is* or *hic* – and free relative clauses, since both types syntactically can commute with a noun and semantically can designate or categorize entities.[47] With respect to free relative clauses, the problem arises whether they are truly attributive – as modifiers of a phonetically unrealized pronominal head – or argumental clauses. Examples (57) and (58), for instance, show the apparent similarity between an indirect interrogative clause and a free relative clause respectively.

47. Free relative clauses, perhaps preceded by a cataphoric pronoun, can occupy any positions a noun can, including the position between preposition and governed noun (Cic. *Manil.* 65: *propter eorum quos ad eas … misimus libidines et iniurias*) or even the role of a complement of a prepositional phrase (78); this is a possible analysis also in cases like Cic. *Att*. 5,11,6: *nunc redeo ad ea quae mihi mandas*.

(57) Cic. *nat. deor.* 1,58: *de te ipso dicam quid sentiam*
'I will give you my opinion of yourself'

(58) Cic. *har. resp.* 50: *dicam quidem certe quod sentio*
'I will surely give my opinion'

Pinkster (1995: 114), who favors an argumental reading, proposes the commutation ((59)–(60)), which would demonstrate the subjectlike nature of the free relative clause *qui deum amat*. However, the question is highly disputed. The same occurrences lead some scholars to discard the hypothesis of the presence of an understood phoric pronoun and others to consider it indispensable, as in (61).[48]

(59) *qui deum amat uirtutem amat*

(60) *amator dei uirtutem amat*

(61) Cic. *Tusc.* 5,20: *Xerxes … praemium proposuit qui inuenisset nouam uoluptatem*
'Xerxes offered a reward to anyone who could find out a new pleasure'

Among the arguments which oppose an argumental interpretation is the lack of correspondence with a propositional value and the occasional necessity to understand a phoric element.[49] This is, most probably, a problem

48. See Lavency (1998: 62), who speaks of *omission du cataphorique*, while Pinkster (1995: 114) regards *qui inuenisset nouam uoluptatem* as a noun phrase which has a function other than subject.

49. Oniga (2004: 129–131) counters Pinkster's (1995: 94) analysis with the argument that if the relative clause could perform the function of a subject, it should also be able to commute with an argumental and vice versa, which is not true (**qui deum amat, aequum est* vs. *deum amare, aequum est*; *qui deum amat, uirtutem amat* vs. **deum amare, uirtutem amat*). Oniga (2004: 130) proposes the structure *pro*$_i$ [$_{CP}$ *qui*$_i$ *t*$_i$ *uirtutem amat*] *deum amat* instead of the structure [$_{CP}$ *qui deum amat*] *uirtutem amat*, which he ascribes to Pinkster (1995: 114), who indeed only claims that "la oración de relativo desempeña indipendientemente la función de Sujeto de la oración *uirtutem amat*". Also Lavency (1998: 65) notes that the relative clause is distinct from, e.g., the indirect interrogative clause since it cannot commute with the pro-form *id*; on the difference between relative clauses and indirect interrogatives see also n. 123. Touratier (1994: 626–627) cites passages such as the following as evidence for the presence of an *antécédent sous-entendu*:

whose solution is theory-dependent.[50]

It is interesting to note that free relative clauses show a strong tendency to select a masculine or neuter pronoun; that is, to present the same opposition [±ANIMATE] which can be found in interrogative and indefinite pronouns.

Relative clauses introduced by the relative-indefinite pronouns *quicumque quaecumque quodcumque* and *quisquis quicquid* never co-occur with a phoric element (Section 1.3.1).[51]

2.2.4. Semantics of free, pronominal, and internal-headed relative clauses

Free relative clauses do not modify a lexical head. This implies that their semantic value cannot be appositive or restrictive, as has often been claimed. The same is true for pronominal relative clauses, when the pronoun is a phoric element (Section 2.1.1).[52]

When free relative clauses and pronominal relative clauses introduced by a phoric element have a referential value by themselves, since they designate

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Cic. *Lael.* 32: *quam qui adpetiuerunt, (ei) adplicant se*; Plaut. *Most.* 11–12: *sine modo adueniat senex. Sine modo (eum) uenire saluom, quem absentem comes*. Moreover, he recalls that Priscianus speaks of relative clauses with an ellipsis (*gramm.* 17,128,8–14: *per ellipsin aliorum casualium haec saepe inueniuntur relatiua, ut Terentius in Andria* – 148–149 *–: 'Ita tum discedo ab illo, ut qui se filiam neget daturum' deest enim 'ut ab eo, qui neget'*).

50. For a synthetic presentation of the different positions see the *Compendium of syntactic analyses of relative clauses* in de Vries (2002: 413–425). In this respect it is worth mentioning that an argumental analysis is not necessarily excluded even if a cataphor does occur, provided that it is interpreted as a determiner (n. 32).

51. See, e.g., Publil. 602: *quicquid fortuna exornat cito contemnitur*; Caes. *Gall.* 5,40,6: *quaecumque ad proximi diei oppugnationem opus sunt, noctu comparantur*.

52. Almost all studies on Latin relative clauses assume a restrictive semantics for free relative clauses and pronominal relative clauses introduced by a phoric element, see e.g. Lehmann (1984: 294), Lavency (1998: 57–58). On the other hand, when the pronoun is a deictic or an anaphor that precedes the relative clause resuming a previously introduced referent (41), the semantic value of the relative clause is appositive (Section 2.2.1). Pronominal relative clauses lack lexical heads by definition (Section 2.2). If pronouns cooccur with lexical heads, the semantic value of the relative clause is usually restrictive in the case of the external head (Section 2.1.1), maximalizing in the case of the internal head ((133), (124)).

entities – as usually happens – they correspond to the "third type" of relative clause semantics, called *maximalizing* by Grosu and Landmann (1998).

In maximalizing relative clauses, the maximal amount (degree or quantity) of entities (individuals or matter) that satisfies the properties described within the relative clause is denoted. Since the set which is designated in its entirety may even be formed by a singleton, maximalizing relative clauses may determine a definite ('who/what': (62)) or a universal ('whoever/whatever': (63)) interpretation.

(62) Plaut. *Rud.* 678–679: *obsecro, quis est qui uocat? / Quis is est qui nominat?*
'for mercy's sake, who is it calling? Who is it who speaks my name?'

(63) Caes. *Gall.* 5,58,6: *redeuntes equites quos possunt consectantur atque occidunt*
'the cavalrymen, when returning, pursue and slay all whom they can'

In maximalizing relative clauses, the whole semantic content of the relative construction (Section 1.2.1) lies within the relative clause. This means that the relative clause–external material is reduced to a minimum and that its semantic contribution should be traced back to a relative clause–internal interpretation or to an interpretation which is, however, predictable from the relative clause.[53] This implies, first of all, that relative clauses introduced

53. For this reason maximalizing relative clauses are called "sortal-internal", whereas both restrictive and appositive relative clauses are "sortal-external" (Grosu and Landman 1998: 126), because of the different position of the *source sémantique*. Maximalizing relative clauses thus cannot be considered restrictive or appositive but are rather part of a continuum which reveals an increasing contribution to the semantics of the whole relative construction by the relative clause, beginning from one extreme where the semantics of a simple noun phrase receives no contribution from a relative clause – since there is none in this case – to the other extreme, where the relative clause, as a bare complementizer phrase, does not allow contribution of external material – which in this case cannot exist (Figure 1).

←————————————————————————→

Simplex XPs   Appositives   Restrictives   Maximalizers   Simplex CPs

Figure 1. Sortal-external ∼ sortal-internal continuum

by *quicumque quaecumque quodcumque* and *quisquis quicquid* are doubtless maximalizing: they never co-occur with phoric elements and share the semantics of universal quantifiers, compatible with the operation of maximalization even when the quantifier is in the matrix clause.[54] Moreover, maximalizing semantics is the only possible interpretation even in the case of preposed and circumnominal relative clauses, which are internal-headed relative clauses (Section 3.3.1).[55]

2.3. Relation between the pivot and the relative pronoun

The relation between the relative pronoun and the pivot depends first of all on the realization of the latter (Section 2.1). If the pivot is realized as an

54. More precisely, maximalizing relative clauses are compatible with universal quantifiers (*every*, free-choice *any*, *all*), definite determiners (*the*, *those*), and partitives built on definites (*three of the books*); their semantics is the only one that preserves the set determined by the application of the operation of maximalization in its entirety; cf. e.g. Caes. *Gall.* 7,30,4: *et sic erant animo consternati homines insueti laboris, ut omnia quae imperarentur sibi patienda et perferenda existimarent*. On the contrary, maximalizing relative clauses are not compatible, for instance, with existential and degree quantifiers (*few*, *many*, *some*, *most*, *no*) or with nondefinite numerals, since their employment would imply the extraction of a part from the set, by breaking its entirety. See Pompei (2010) for an application of the maximalization concept to Latin relative clauses and a discussion of counterexamples. Cases of free relative clauses like Hor. *sat.* 2,1,1: *sunt quibus in satura uidear nimis acer* belong instead to the typology defined by Grosu and Landman (1998) as "irrealis free relatives". These are not maximalizing because they occur in contexts that select indefiniteness (e.g. *there be*); they are the bare complementizer phrases which occupy the rightmost side of the continuum in Figure 1. We can trace back to this category many of the occurrences that Lavency (1998: 71–77) defines as *PR nominalisées génériques (qualificatives) + subjonctif*. For a complete overview of the semantic values of free relative clauses from a crosslinguistic perspective see de Vries (2002: 42–55). See Kleiber (1987) for a review of different attempts to overcome the restrictive/appositive dichotomy.
55. See, e.g., (144) for the compatibility of correlatives with universal quantifiers; cf. Caes. *Gall.* 5,41,6: *licere illis … quascumque in partes uelint, sine metu proficisci* vs. Caes. *Gall.* 5,34,3: *et quam in partem Romani impetum fecerint cedant* for the presence of relative pronouns with universal quantifier semantics in circumnominal relative clauses and for the semantic equivalence of these relative clauses with relative clauses introduced by *qui quae quod*.

internal head, the relative pronoun agrees with it in number, gender, and case; also, possible phoric elements in the matrix clause agree with the internal head in gender and number, while their case is determined by the syntactic function, as happens as a rule in phoric relations ((51), (124)). On the other hand, realization of the pivot as an external head determines the agreement of the relative pronoun in gender and number only, while the case of the relative pronoun is determined by the relativized position; that is, by the syntactic position that the pivot would have if it were realized as an internal head, rather than being represented by the relative pronoun ((3), (7)). That is, when the head is external the relative pronoun behaves like a phoric element: it acquires gender and number on the basis of the constituent of the matrix clause with which it is coreferent, marking it as the head of the modification, while it retains its syntactic function (Section 1.3.2).[56] When lacking a lexical head (Section 2.2), the relative pronoun tends by default to be [MASCULINE] if the referent is [+ANIMATE], [NEUTER] if it is [−ANIMATE] (Section 2.2.3).

This situation is valid at least until a blurring takes place, which will favor the evolution of the pronoun to the status of a complementizer (Section 5.1.4). Throughout the history of the Latin language, however, some exceptions to this rule are recorded, among which the most interesting are doubtless *attractio inversa* (Section 2.3.1) and *attractio relativi* (Section 2.3.2) affecting case agreement. Less interesting are some cases of special agreement in

56. From the point of view of relativization operations, agreement in gender and number with an external head marks attribution (Section 3.1.2), while case selection is determined by empty-place formation (Section 3.1.3). Typologically, things do not always work as they do in Latin. In Modern Standard Arabic, for instance, the relative pronoun agrees with its external head not only in gender and number, but also in case, as can be seen in the dual, which is the only number where the case of the relative pronoun is morphologically marked:

al-kitāb-ā-ni	*al-laḏ-ā-ni*
DET-book-NOM-DUAL	DET-which-NOM-DUAL

qaray-tu-humā
read.PERF-1SG-3DUAL.ACC
'the (two) books which I read'

In this case the relativized syntactic position, direct object, is marked by the presence of a resumptive suffix pronoun (-*humā*) (Section 3.3.2).

number and gender which may be traced back to specificities of the nominal agreement and therefore also affect the agreement of appositives, attributes, nominal parts of the predicate, and, of course, pronouns, particularly phoric elements (Touratier 1980: 113–127; Lavency 1998: 85–93).

In cases of agreement with more than one constituent, for instance, the relative pronoun may agree with just one constituent, usually the closest one (124) – as attributes also usually do and other pronouns can do – or with all of them, in which case the number is plural (37); moreover, if the gender of the constituents is different, gender agreement follows animacy hierarchies, according to which [MASCULINE] > [FEMININE] > [NEUTER] in case of [+ANIMATE], [NEUTER] > [MASCULINE] > [FEMININE] in case of [−ANIMATE], and [+ANIMATE] > [−ANIMATE] – as happens with nominal parts of predicates and phoric elements (105). Cases are also recorded where the relative pronoun agrees with the semantic gender of the pivot, rather than with its grammatical gender (e.g., *res … quod*: *constructio ad sententiam*); the gender of the relative pronoun is neuter if its *source sémantique* is a whole clause (n. 36). Even in this case, relative pronouns behave as all phoric elements do.

Relative pronoun agreement is particularly similar to the agreement of other pronouns – and specifically of anaphors – in the case of attraction of gender and number by the nominal part of the predicate – that is, in presence of a copula or a predicative constituent; this type of agreement for attraction, however, takes place only if the relative clause is appositive (64), while it does not if the latter is restrictive (65) (Section 2.1.1).[57]

(64) Liv. *perioch.* 33: *L. Quintius Flamininus, ille frater procos., Acarnanas, Leucade urbe, quod caput est Acarnanum, expugnata, in deditionem accepit*
'the proconsul's brother Lucius Quintus Flamininus captured the city of Leucas (the capital of the Acarnanians) and accepted the surrender of the Acarnanians'

57. See, e.g., Caes. *Gall.* 7,57,1: *Labienus … Luteciam proficiscitur. Id est oppidum Parisiorum* for a case of agreement through gender and number attraction with a nonrelative anaphoric pronoun.

(65) Liv. 22,20,7: *ibi urbe quae caput insulae est, biduum nequiquam summo labore oppugnata, … cum in naues se recepissent, ex Baliaribus insulis legati pacem petentes ad Scipionem uenerunt*
'there, the capital having being attacked determinedly but unsuccessfully during the whole of two days, as they were on the point of sailing away, some envoys came to Scipio from the Balearic isles to sue for peace'

According to Lehmann (1984: 263 n. 16), among nonrestrictive relative clauses there are also those relative clauses in which the relative pronoun agrees in gender and number not with the external head noun but with the referent underlying the adjective that modifies this noun, as if it were the genitive of the noun (or pronoun) from which the adjective derives. This can happen in the case of possessive adjectives ((66): *meo* = *mei*), but also in other cases ((67): *senatoriam* = *senatus*).[58]

(66) Aug. *conf.* 1,12,19: *errore omnium, qui mihi instabant ut discerem, utebaris ad utilitatem meam, meo autem, qui discere nolebam, utebaris ad poenam meam qua plecti non eram dignus*
'you used for my own good the error of all those who pushed me to study, but my error in not being willing to learn you used for my punishment'

(67) Cic. *Brut.* 112: *hoc dicendi genus ad patrocinia mediocriter aptum uidebatur, ad senatoriam uero sententiam, cuius erat ille princeps, uel maxume*
'this manner of speaking, however, though barely appropriate to the bar, was very much appropriate to debate in the Senate, of which he (Scaurus) was then revered as the most eminent practitioner'

58. In this regard see also Touratier (1994: 626–627); adjectives which can attract agreement sometimes seem to correspond to argumental genitives; from a lexical point of view, this is the class of adjectives called "group adjectives" by Grimshaw (1992: 81); cf. also Liv. 2,53,1: *Veiens bellum … quibus* and the discussion in Ernout & Thomas (1953: 141). On the other hand, as a rule the relative pronoun agrees with the common noun and not with the proper noun in cases of apposition of place names (Liv. 6,33,4: *Satricum urbem, quae*, with the exception of *flumen*, which fluctuates after Caesar (*Gall.* 1,2,3: *flumine Rhodano qui* vs. *Gall.* 2,5,4: *flumen Axonam quod*).

The freedom in anaphor is strictly linked to nonrestrictive modification: since it is a second predication, the link to the external head is rather loose, and more semantic-textual than grammatical in nature. On the other hand, a restrictive relative clause and its external head are linked by such a close bond and the integration of the relative into the matrix clause is so strong that ellipses are possible in the noun phrase of the relative pronoun (68).[59]

(68) Cic. *leg.* 3,33: *nam ego in ista sum sententia qua te fuisse semper scio*
'for here I hold that doctrine, which I know you always maintained'

2.3.1. Attractio inversa

By *attractio inversa* or regressive attraction we mean the phenomenon that a (pro)nominal head is not in the case required by its function within the matrix clause, but rather in the same case as the relative pronoun. In all instances of this phenomenon, the lexical head is immediately before the relative pronoun, and as a rule the relative clause precedes the matrix clause. This is quite frequent in the early period (Section 5.2), but it is attested only rarely in subsequent stages in the evolution of Latin, even if its traces can be followed

59. These specificities in the behavior of relative pronouns can be traced back to their function as pronouns, in particular as modification markers (Sections 1.3.2, 3.1.2). On the other hand, the possibility of coordination of relative pronouns with nonrelative anaphors can be traced back to the subordination function (Section 3.1.1; (83)). In such cases, the subordination function is only marked by the first occurrence of the anaphor, which is therefore a relative pronoun; in the second occurrence, coordinated to the first one, this piece of information is not repeated. An anaphor in the second member of the coordinated structure cannot be found in Caesar or Sallust. Since relative pronouns are not marked for person, verbs in relative clauses agree with a personal pronoun expressed in the matrix clause which works as a pivot ((21), (40), (73)) or directly with the person of the matrix clause verb (e.g., Plaut. *Rud.* 640: *bene equidem tibi dico, qui te digna ut eueniant precor*).

up to the late period (Section 5.4).[60] The case shared by the head and the relative pronoun is mostly nominative ((69)–(70)) or accusative (71).[61]

(69) Plaut. *Pseud.* 718–719: *eius seruos qui hunc ferebat cum quinque argenti minis, / tuam qui amicam hinc arcessebat, ei os subleui modo*
'his slave who was bringing this with five minas in cash and was coming to carry off your girl – him have I just bamboozled'

(70) *CIL* I^2, 585: *ager publicus populi Romanei, quei in Italia P. Mucio L. Calpurnio fuit, eius agri …*
'as regards the public land of the Roman people in the land of Italy in the consulship of Publius Mucius and Lucius Calpurnius, of this land …'

(71) Cato *orat.* 114: *agrum quem uir habet tollitur*
'the field which a man owns is taken away'

The attracted head may be not only nominal, but even pronominal:

(72) Plaut. *Curc.* 419: *sed istum quem quaeris ego sum*
'however, I am the man you're looking for'

60. For a thorough exemplification of this phenomenon see Kühner & Stegmann (1914, 2: 289–290) and Hofmann & Szantyr (1965: 567–568); see also Touratier (1980: 147–171, 197–211) and Lavency (1998: 94–95).

61. In fact, some much rarer instances of dative case are recorded (e.g., Plaut. *Truc.* 745: *qui inuident egent; illis quibus inuidetur, i rem habent*) together with sporadic cases of attraction of an adverb (e.g., Plaut. *Merc.* 511: *quia illim unde huc aduecta sum, malis bene esse solitumst*); see Kühner & Stegmann (1914, 2: 290) for other examples. Some scholars (Hofmann & Szantyr 1965: 567; Löfstedt 1911: 236; Touratier 1980: 202–203) remark that the attracted head can also be the last in a series of coordinate elements, as happens, e.g., in Cato *agr.* 34,2: *in creta et uligine et rubrica et ager qui aquosus erit, semen adoreum potissimum serito*. In fact, the phenomenon of *attractio inversa* may also happen with the first member of a coordinate structure (cf. e.g. Plaut. *Curc.* 288–295: *tum isti Graeci palliati, capite operto qui ambulant, / qui incedunt suffarcinati cum libris … / quos semper videas bibentes esse in thermipolio … eos ego si offendero, / ex unoquoque eorum exciam crepitum polentarium*). Example (71) is cited by Servius (*auct. ad Verg. Aen.* 1,573 *"Vrbem quam statuo uestra est"*: *hoc schema de antiquioribus sumptum possumus accipere, ait enim Cato in legem Voconiam*), in his comment to the only instance of *attractio inversa* in Vergil.

(73) Plaut. *Bacch.* 420–421: *sed tu, qui pro tam corrupto dicis causam filio, / eademne erat haec disciplina tibi, quom tu adulescens eras?*
'but you – with your pleas for a son so corrupted – was your own training of this same sort when you were a young man?'

As shown in the examples, the attracted head can be resumed (69) or not ((71)–(72)) in the matrix clause by a phonetically realized phoric element; the head in the matrix clause can even be reduplicated (70) or resumed by a personal pronoun if the head itself is a personal pronoun (73). A resumptive is much more frequent in cases other than nominative and accusative.[62]

The term "attraction" shows that the grammatical tradition has interpreted this phenomenon – probably in a normative perspective based on Classical Latin – as an instance of case change in the (pro)nominal head through the influence of the relative pronoun. This analysis, which regards the head as substantially external to the relative clause, is countered by ancient and more recent grammarians, who think that case coincidence between the head and the relative pronoun makes these occurrences closer to internal-headed relative clauses (Section 3.3.1).[63] Cases such as (74), where a constituent of the relative clause precedes not only the relative clause, but also the nominal head, support this analysis.

(74) Petron. 44,11: *asse panem quem emisses, non potuisses cum altero deuorare*
'the loaf you got for an as, you couldn't eat, not even if someone helped you'

62. The resumption can also be performed by an adverb (cf., e.g., Cato *agr.* 64,2: *olea quae diu fuerit in terra, inde olei minus fiet*). On different possibilities of resumption, classified according to case, see Kühner & Stegmann (1914, 2: 289–290).

63. Cf. Claud. Don. (*Aen.* 1,573, p. 113,12: *urbem quam statuo uestra est. Multi uitium putant esse quia dixit Vergilius uestra est urbem, et reuera potest esse, si non remoueatur error ordinatione sensus effecta. Sic enim accipiendum est: quam statuo urbem uestra est*). In fact Bach (1888: 5, 19) considers attraction a simple case of position exchange between head and relative pronoun. Álvarez Huerta (2005: 183) remarks, on the other hand, that if there is some similarity between the cases of attraction and internal-headed relative clauses, it concerns preposed relative clauses more specifically, since almost all cases of attraction precede the main clause and a good many cases also have a resumption in the latter.

In favor of the external head analysis, on the other hand, Touratier (1980: 152–156) considers cases like (75), where it seems necessary to interpret the head as an external one, since it is accompanied by a demonstrative, which is unlikely to be within the relative clause.[64] For this reason, Touratier (1980: 207–211) regards occurrences of *attractio inversa* as cases of “extraposition”, where a syntactically isolated element, which needs to have a morphological case, takes the case of the constituent which shares its reference, namely the relative pronoun.[65]

(75) Plaut. *Poen.* 644: *hunc chlamydatum quem uides ei Mars iratust*
‘this guy you see in the military cloak – he’s under the curse of Mars’

64. This should be valid also for cases where the head is pronominal rather than lexical (Plaut. *Trin.* 137: *ille qui mandauit eum exturbasti ex aedibus?*); indeed, in the latter case we cannot state that in Latin there are no cases where a relative clause contains a demonstrative in the same case, and with the same function, as the relative pronoun, even if they are classified as examples of resumptive pronoun (Section 3.3.2); the same is valid for the, admittedly extremely rare, cases where a demonstrative and a lexical head can both be found inside the relative clause (see Touratier 1980: 155–156; Section 5.4).

65. Álvarez Huerta (2005: 183) carries Touratier’s hypothesis (1980: 207–211) to extremes and even denies the morphological attraction of the head by the relative pronoun. Beginning with the observation that almost all cases of *attractio inversa* are in the nominative or accusative, she claims that the cases of nominative, normally resumed by a phoric element, are left-dislocations with the function of a new topic; the selection of nominative is determined by the fact that the pragmatic function of topic is usually performed by the subject. On the other hand, occurrences in the accusative, which very often are not resumed by a pronoun, are topicalizations, which for Álvarez Huerta (2005: 192) means focalization, especially in relation to the subject. In neither case does the relative pronoun play a specific role, so no attraction could take place. Lehmann (1984: 184–185, 348–355) is closer to Touratier’s position; he sees these structures as a subtype of preposed relative clauses (Section 4.1) regarding their position with respect to the matrix clauses, but as cases of possible reanalysis between postnominal and circumnominal relative clauses regarding their position with respect to the head. He considers them the relative clauses which best fit the pragmatic function of *Exposition* (133); they can be seen as structures which as a rule are not constituents of the matrix clause since they fulfill no syntactic function in it – as the possible presence of the correlative underlines – and as such they are absolute. Lehmann (1984: 351) remarks, however, that, even though these constructions doubtless fit the traditional definition of *nominativus pendens*, the fact that they are often in the nominative cannot be explained in terms of “default case” but rather with reference to agreement with the nucleus of the relative clause.

Even if *attractio inversa* is regarded as a particular case of internal-headed construction, requirements of information structure must be appealed to in any case in order to explain the different positions of the head.[66]

2.3.2. *Attractio relativi*

By *attractio relativi* or progressive attraction we mean the phenomenon that the relative pronoun is not in the case required by its syntactic position in the relative clause, but rather in the case of its external head. This is not a very frequent phenomenon in Latin, and it poses several problems of individuation.[67] The literature agrees in regarding occurrences such as (76)–(77) as cases of *attractio relativi*.[68] In (76), the relative pronoun which introduces the relative clause *quo nosti* according to its syntactic function should be in the accusative rather than in the ablative, which is the case of the preceding lexical head *iudice*. In (77) too, the case of the relative pronoun in *quibus diximus* is ablative rather than accusative, but in this case the lexical head *generibus* follows the relative clause.[69]

66. Occurrences with a demonstrative pronoun can be explained by reanalysis: the head is assumed to move out of the relative clause, and a true noun phrase is supposed to form.
67. On the other hand, this construction is very frequent in Greek (Kurzová 1981: 48; Rijksbaron 1981) and can variously be found in the world's languages, e.g. in Arabic (n. 56). On case agreement of the relative pronoun with its head see also Lehmann (1984: 251).
68. Many of the cases singled out by grammars as occurrences of *attractio relativi* can actually be accounted by ellipsis; this is true especially for the many cases where the verb in the relative clause is a *uerbum dicendi*, *possum*, *uolo* or another verb which can govern the infinitive (cf. e.g. Cic. *Att.*, 3,9,2: *et spe qua iubes nitemur* = *qua iubes nos niti*; Touratier 1980: 214–225) ; see in this regard Kühner & Stegmann (1914, 2: 288) and Hofmann & Szantyr (1965: 566).
69. From the point of view of the position of the relative clause in relation to its lexical head (Section 3.4), they are cases of postnominal (76) and prenominal (77) relative clauses respectively. More precisely, an example like (77) would be a case of a prenominal relative clause which, because of attraction, would end up coinciding with a circumnominal; however, whereas in true circumnominal relative clauses the inflection of the relative pronoun and the lexical head, being internal, is determined by the verb of the relative clause, in these cases of attraction the agreement between the relative pronoun and the lexical head is determined by the matrix clause verb, so the head is external.

(76) Hor. *sat.* 1,6,13–15: *unius assis / non umquam pretio pluris licuisse, notante / iudice quo nosti, populo*
'(Laevinus) was not a penny more esteemed in the judgment of the people, with whose disposition you are well acquainted'

(77) Plin. *nat.* 18,68: *Galliae et Hispaniae frumento in potum resoluto quibus diximus generibus spuma ita concreta pro fermento utuntur*
'when the grain of Gaul and Spain of the kinds we have stated is steeped to make beer the foam that forms on the surface in the process is used for yeast'

Features common to all cases of *attractio relativi* are that the relative pronoun is attracted from a direct case to an oblique case and that the relative clause has a reduced expansion. Cases of *attractio relativi* are found even without a phonetically realized head, as in (78) in the version of the *Vetus Latina*, whereas the *Vulgata* has *sed pro his, quos dedisti mihi*.

(78) *Ioh.* 17,9: *non pro hoc mundo rogo, sed de quibus dedisti mihi*
'I pray not for the world, but for those which you have given me'

The *attractio relativi*, which is substantially absent in Early Latin and is very rare in the classical period, becomes increasingly common in Biblical Latin, the Septuagint translation of the Bible being an additional factor (Kühner & Stegmann 1914, 2: 288; Hofmann & Szantyr 1965: 567).

Beyond cases with the verb *dico*, which seem to form a kind of construction, the fact that it implies full agreement of the relative pronoun with its head is important for the syntactic interpretation of the phenomenon. This causes the loss of the ability of the relative pronoun to mark the syntactic position relativized (Section 1.3.2) – a loss partly compensated for by the predictability of information (Touratier 1980: 236) – and a deep embedding of the relative clause within the matrix clause, almost as an adjectival attribute (also because of its high degree of nominalization: Section 3.1.1).

3. Relative clause typology

The analysis of relative clauses within typological studies has received a great deal of attention since the 1970s. The most important results of this trend are the following:

(a) Detection of the constitutive operations of the relativization process (Section 3.1); taking these operations into account, it is also possible to clarify the relationship between relative clauses with finite verbs and participle constructions with a similar function (Sections 1.5.1, 3.3.6).
(b) Determination of the different degree of accessibility to the relativization process for different syntactic functions (Section 3.2).
(c) Identification of different relativization strategies (Section 3.3).
(d) Classification of relative clauses according to their position in relation to the lexical head and their degree of integration in the matrix clause (Section 3.4).[70]

3.1. Relativization operations

According to Lehmann (1984: 145–252), relative clause formation is based upon three operations: subordination (Section 3.1.1), attribution (Section 3.1.2) and empty-place formation (Section 3.1.3).

3.1.1. Subordination

The first operation of relative clause formation is the *subordination* of one clause to another, as it is impossible for a relative clause to occur independent of its matrix clause. According to Lehmann (1984: 145–149), in the case of subordination the distinction between embedded and adjoined clauses is pertinent.[71] Embedded clauses are constituents of the matrix clause; adjoined

70. The whole of Section 4 is devoted to this classification because all other typological parameters intersect with it and come together in it.
71. Lehmann (1988, 1989) elaborates a concept of subordination which can be applied to all subordinate clauses and takes into account six semantic-syntactic parameters. In particular, Lehmann's second criterion (1988: 189–192, 1989: 157–159) determines "the main clause syntactic level which the subordinate clause belongs to" (Figure 2).

sentence ⟵⟶ word

outside main clause	at margin of main clause	inside main clause	inside VP	verb serialization	auxiliary periphrasis	verbal derivation

Figure 2. Syntactic level

clauses are extraclausal and as a rule lie at the margin of the matrix clause (Section 3.4).[72] This structural position is clearly proven in cases where the subordinate clause is resumed by a correlative pronoun, which is itself a constituent of the matrix clause (99), or in case a clause boundary marker shows the extraclausal nature of the adjoined clause, as happens, for example, with the particle *nu* in Hittite (Section 5).

A concept closely linked to subordination is *nominalization*, which can be defined as the transformation of a predicative expression into a nominal one. Nominalization is conceived as a scalar process.[73] Lehmann (1984: 151) makes a distinction between nominalized and nonnominalized relative clauses, since different positions of relative clauses (Section 3.4) are tied to

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72. Among adjoined clauses are in fact also parenthetic clauses, which linearly – but not structurally – lie within the matrix clause.
73. The degree of nominalization can be determined through Lehmann's (1988: 193–200, 1989: 160) third criterion, desententialization. The parameter of desententialization may be viewed as a continuum, having as extremes on the one hand the full verbality of a verb form and the full sententiality of the sentence built around this form, and on the other hand the full nominality of a deverbal noun. The gradual passage from one pole of the continuum to the other is defined by a series of features disposed along a scale. After the first step there is a subordinate clause, after the last one a deverbal noun (Figure 3).

sententiality ⟷ nominality
clause — verbal noun

no illocutionary force
constraints on illocutionary elements
constraints on/loss of modal elements and mood
constraints on/loss of tense and aspect
dispensability of complements
loss of personal conjugation
conversion of subject into oblique slot
no polarity
conversion of verbal into nominal government
dispensability of subject
constraints on complements
combinable with adposition/agglutinative case affix/flexive case affix

Figure 3. Desententialization

different degrees of nominalization, according to a continuum which may be depicted as in Figure 4.[74]

preposed	postposed	circumnominal/postnominal	prenominal
−			+

Figure 4. Nominalization continuum

Useful features for establishing the degree of nominalization of a relative clause can essentially be given by the degree of expansion of the clause and the use of moods (Section 1.4). The employment of moods which as a rule occur in main clauses only – such as imperative and independent subjunctive – can also be interpreted as a hint of the illocutionary force of the relative clause, which thus turns out to be linked to the matrix clause by a fairly loose subordination bond (Section 4.3). On the other hand, selection of dependent subjunctive rather than indicative may be regarded as a sign of a stronger embedding of the relative clause in the matrix clause. This is evident, for instance, when two occurrences of relative clauses preceding the matrix clause are compared, the first, being part of a correlative diptych, in the in-

74. Preposed relative clauses (Section 4.1) virtually exhibit no mark of nominalization at all, since their syntax is very close to that of independent clauses, according to Lehmann's first criterion (1988: 183–189, 1989: 155–157), which considers various steps on a scale of hierarchical downgrading, from the pole of the parataxis to the pole of embedding (Figure 5).

parataxis ⟷ embedding

independent clause	adjoined clause	correlative diptych	medial clause	conjunctive participle	governed clause

Figure 5. Downgrading of subordinate clause

Postposed relative clauses (Section 4.3) are little nominalized, too. On the other hand, postnominal relative clauses (Section 4.4) are nominalized enough, at least because they help to form a nominal constituent within matrix clauses. Circumnominal relative clauses (4.5) themselves have a certain degree of nominalization, since they form a phrase in the matrix clause. Finally, prenominal relative clauses (Section 4.2) are the most nominalized of all; this is why at the crosslinguistic level they are very often realized by nonfinite forms of the verb, for instance, participles.

dicative (99), the second, semantically equivalent to a protasis of a hypothetic sentence, in the subjunctive (22).

Lehmann (1986: 672) notes that there is a strong correlation between the degree of nominalization of a relative clause and the extension of syntactic positions it is able to relativize: the more a relative clause is nominalized, the less it can go down the Accessibility Hierarchy (Section 3.2).[75]

3.1.2. Attribution

The function of the attribution operation is to enhance the designation capabilities of a language through the individuation of complex referents. According to Lehmann (1984: 173–188), this operation can be performed explicitly or implicitly.

Explicit attribution is performed through structural means; in this case the attribute is as a rule adjacent to the head it modifies or is linked to the latter by some other means, such as through agreement markers (Sections 4.2, 4.4).

Implicit attribution can arise in two cases: (a) "implicit concept-building" (*implizite Begriffsbildung*); (b) "additional attribution" (*nachträgliche Attribution*). Implicit concept-building takes place whenever a clause includes an indefinite non-generic, that is, specific, noun phrase, which becomes the center of a complex designation in which predication takes part. In (79), for instance, the predication *Gestern habe ich einen Studenten geohrfeigt* implicitly builds the concept 'the student whom I slapped' and makes this new complex referent available for possible textual needs, such as resumption through anaphor (*er*).

(79) *gestern habe ich einen Studenten geohrfeigt; er konnte seinen Stoff nicht hersagen*
'yesterday I slapped a student; he could not repeat his lesson'

Once an implicit concept has been built, any further predication which refers to it adds an attribution. Thus, the sentence *er konnte seinen Stoff nicht hersagen* adds to the complex concept 'the student whom I slapped', built in

75. In this regard see also Lehmann (1984: 221). The presence of a relative pronoun always blocks a full nominalization (Lehmann 1984: 168–173).

the first sentence, the further attribution ‘who could not repeat his lesson’. This further attribution is realized through a (second) predication; it is, therefore, an additional implicit attribution.

Relative clauses with a lesser degree of nominalization can be attributed only implicitly.

Implicit attribution is a functional concept, whose structural correlates must be detected from time to time (Sections 4.1, 4.3, 4.5, 5.1.1). In particular, in cases of preposed and circumnominal relative clauses, a process of grammaticalization takes place which is based on *nucleus formation*.

3.1.3. Empty-place formation

A relative clause is, as a rule, a clause with an unsaturated syntactic position, namely, an *empty place* (*Leerstelle*; Lehmann 1984: 151). This is the relativized syntactic position (Section 3.2.1). In conditions of implicit attribution, if the semantic nucleus is directly inserted in this empty place – that is, if the relative clause is internal-headed – the relative clause is saturated (Sections 4.1, 4.5). Otherwise, a phoric element is inserted in the empty place, which is only a syntactic marker and is semantically coreferent with the nucleus in the matrix clause – that is, with an external head – to which the relative clause, as an attribute, is oriented (Sections 4.2, 4.3, 4.4).

The degree of explicitness of this phoric element is inversely proportional to the degree of explicitness of attribution. This means that, in cases of implicit attribution, the phoric element can quite frequently be represented by a noun phrase identical to the coreferent or by one that has a paradigmatic relationship to the latter (Section 4.3), while in case of explicit attribution it is as a rule a pronoun (Sections 4.2, 4.4).

Indeed, according to Lehmann (1982), the realization of the anaphor builds a continuum.[76] Moving from the pole of utmost explicitness to the pole of maximum implicitness, the syntactic level where the anaphor enters varies accordingly, from an independent clause to a mere phrase. The most explicit

76. Lehmann (1982) uses *anaphor* as a hyperonym; see also Lehmann (1984: 224–227), who speaks of *Skala der Anapher*. As for the concept of empty-place formation, Lehmann (1984: 151) does not consider the relative clauses without a lexical head (Section 4.1, and n. 100).

kind of anaphor is a free anaphor suitable to the level of reference tracking in a text, that is, to an interclausal level; at this syntactic level the phoric element is properly anaphoric, since it follows its referent. On the other hand, the more we move toward a lesser explicitness, the less free the choice of the phoric element becomes; its position may also precede the coreferent element, already at the level of the dependent clause. In other words, there is a process of grammaticalization of the means to resume a semantic nucleus, which, rather than being textual, becomes morphosyntactic. Many languages in fact do not need any representative within a single phrase, but rather directly attach the nucleus to the slot to which the attribute is oriented (Section 3.3.6). This happens in particular in the case of simple attributes, since it is not necessary to show which position is occupied by the slot they are oriented to and in which the modified head is inserted, because it is not subject to choice.

As a rule the relative pronoun is an anaphor; therefore its case is determined by the relativized syntactic position whose place it marks (Section 2.3). Its behavior does not follow standard anaphoric rules, however, since a relative pronoun in order to be regarded as such must perform at least two of the constitutive operations of relativization. Therefore it is always an attributor and/or a subordinator too (Section 1.3.2).[77]

3.2. Accessibility hierarchy

The concept of the accessibility hierarchy is closely connected to the operation of empty-place formation, since it concerns relativized syntactic positions (Section 3.1.3). It is dealt with independently because typological studies have given special emphasis to this aspect of the relativization process.

77. This implies, for example, that the relative pronoun must necessarily be realized, unlike anaphors, in subject or object position; the resumptive content present in the pronoun is morphologically bound by its two other functions since no reason can be imagined why a subordinator or an attribute might be missing if the nucleus is a subject or an object (Section 3.2.2).

3.2.1. The concept of an accessibility hierarchy

The elaboration of the concept of an accessibility hierarchy goes back to works by Keenan and Comrie,[78] who first remarked that the different syntactic positions a noun phrase may occupy in a clause show a different degree of accessibility to the relativization process, according to the hierarchy of syntactic functions shown in Figure 6 (Keenan and Comrie 1977).

subject > direct object> indirect object > oblique object > noun complement > standard of comparison

Figure 6. Hierarchy of syntactic functions

Indeed, the comparison of a great number of languages clearly shows that noun phrases in the position of subject, direct object, and indirect object are relativized more often than noun phrases occupying other positions governed by the verb, noun complements, and the standard of comparison.

Unlike languages like English, where all six of these positions can be relativized, there are languages like Malagasy where only the subject can undergo relativization, and others, e.g. Kinyarwanda (Rwanda), where relativization applies to subjects and direct objects only, and so on.

Lehmann (1984: 211–220, 1986: 667–669) proposes a refinement of the accessibility hierarchy, first of all by classifying in two distinct subhierarchies noun phrases related to a verb (adverbal syntactic functions) and noun phrases related to a noun (adnominal syntactic functions) (Table 4).

78. See Keenan (1972) and in particular Keenan and Comrie (1977), Comrie and Keenan (1979) and Comrie (1981), where a weaker interpretation of the hierarchy is presented, and Keenan and Comrie (1979), where the data on which the formulation of the accessibility hierarchy is based are published.

Table 4. Subhierarchies of syntactic functions (Lehmann 1984)

ADVERBAL SYNTACTIC FUNCTIONS	ADNOMINAL SYNTACTIC FUNCTIONS	OTHER FUNCTIONS	
subject / absolutive			
direct object / ergative			
indirect object temporal and local complements			
	genitive attribute[a]		
other complements	standard of comparison		constituents of a subordinate sentence, adverbally embedded within a relative clause
adjuncts		constituents of a coordinated structure	
	prepositional attribute		constituents of a subordinate sentence, adnominally embedded within a relative clause

This distinction is due to the fact that from a crosslinguistic perspective these subhierarchies appear to be quite weakly ordered with one another. Lehmann's further refinement consists of a finer distinction between argumental and adjoined phrases, according to the claim that arguments occupy the higher places in the accessibility hierarchy because their syntactic function can easily be recovered from the thematic structure of the verb or the noun. Lehmann (1984: 219) presents two other subhierarchies, which are relative to cases where relativization concerns a coordinated structure or a clause adverbally or adnominally embedded in the relative clause.

3.2.2. The accessibility hierarchy and Latin relative clauses

In Latin, almost all syntactic positions can be relativized (Touratier 1980: 390, 1994: 620–623; Lehmann 1986: 669), with a marked preponderance for

the positions of subject and direct object. Typologically this seems to confirm the priority of these syntactic positions within the accessibility hierarchy.[79]

It should be noted that, among adnominal syntactic positions, no cases of relativization of prepositional phrases related to a noun can be found in Latin (Lehmann 1984: 213–214); on the other hand, cases of relativization of a standard of comparison are attested (80).[80]

(80) Plaut. *Merc.* 100–101: *ecce ad me aduenit / mulier, qua mulier alia nullast pulchrior*
'a girl came to me, than whom a more beautiful girl does not exist'

Latin also realizes what is expected by the last two subhierarchies (Table 4). It is in fact possible to relativize constituents of coordinate structures, both with (105) and without (37) repetition of the relative pronoun. It is also possible to relativize only one of the conjuncts, both at the clausal (81) and at the phrasal (82) level; in other cases a nonrelative anaphor can be found instead of the expected repeated relative pronoun (83).[81]

(81) Verg. *ecl.* 2,36–38: *est mihi . . . / fistula, Damoetas dono mihi quam dedit olim, / et dixit moriens: 'te nunc habet ista secundum'*
'I have a pipe, a gift that Damoetas once gave me, and said as he died: "Now it has you for its second master"'

79. The preponderance of verb arguments as relativized positions can in fact also be traced back to their higher frequency with respect to other syntactic positions; for a similar consideration about the position of subject see among others Addabbo (2001: 462 n. 4). For an illustration of the behavior of Latin relative clauses in relation to the accessibility hierarchy, see also Pompei (2011).

80. According to Lehmann (1984: 213), in Latin no case of relativization of *genitivus materiae* can be found, either. He considers the matter genitive as part of genitive attributes, together with the possessive and partitive genitives. Standards of comparison, besides being in the ablative, can also be introduced by *quam*, as in Caes. *Gall.* 7, 77, 5: *qui se ultro morti offerant facilius reperiuntur quam qui dolorem patienter ferant*; however, as Touratier (1980: 391–393, 1994: 621) remarks, in these cases the standard of comparison is never formed by the relative pronoun only (**quam quae nihil melius habemus*), but the comparison refers to the whole relative clause; see Tarriño, this volume.

81. On the coordination of relative clauses see among others Lavency (1998. 109–111). For other examples of coordination with a single relativized conjunct see Touratier (1994: 622–623) and (1980: 407–408) for the coordination of phrases.

(82) Caes. *Gall.* 6,36,2: *quinque cohortes frumentatum in proximas segetes mittit, quas inter et castra unus omnino collis intererat*
'(Caesar) sent five cohorts into the neighboring cornfields, between which and the camp only one hill intervened'

(83) Cic. *Brut*. 258: *sed omnes tum fere, qui nec extra urbem hanc uixerant neque eos aliqua barbaries domestica infuscauerat, recte loquebantur*
'but yet people in general, who had not resided out of the city, nor been corrupted by any domestic barbarisms, spoke the Roman language with purity'

Finally, Latin relative clauses can be found where the relative pronoun is in fact the constituent of another clause subordinate to the relative clause, in relation with a verb – an argumental (84) or adverbial (28) clause – or with a noun – a relative clause (85).[82]

(84) Caes. *Gall.* 2,9,3: *hostes protinus ex eo loco ad flumen Axonam contenderunt, quod esse post nostra castra demonstratum est*
'the enemy immediately hastened from that place to the river Aisne, which it has been stated was behind our camp'

(85) Cic. *Tusc*. 5,45: *qualia igitur ista bona sunt, quae qui habeat miserrimus esse possit?*
'what, then, are those goods such that who is in their possession may be very miserable?'

3.3. Relativization strategies

From a typological perspective, the realization of the pivot within the relative clause is more interesting than its realization within the matrix clause

82. In this regard see Maurel (1989), Bortolussi (2005), Touratier (1980: 393–400) and Lavency (1998: 6, 91–93), who identifies these cases as "entrelacs relatifs", according to Évrard's definition (1992); Hofmann & Szantyr (1965: 568–569) speak of "relative Verschränkung". See also Lasagna (2007), in particular with respect to the sharing of the relative pronoun by relative clauses and *Accusativus cum Infinitivo* clauses.

Table 5. Relativization strategies in Latin

+expl ↑	Nonreduction Strategy	a) internal headed: *in quo loco posturus eris terram bene subigito et stercerato* (Cato *agr.* 161,3) b) correlative: *quem agrum poplicum iudicamus esse, eum agrum castelanos Langenses Veiturios po[si]dere fruique uidetur oportere* (*CIL* I^{2},584)
	Resumptive Pronoun Strategy	c.1) *cuius non sum dignus soluere corrigiam calceamentorum eius* (*Luc.* 3,16) c.2) *hominem . . . , quem ego beneficium ei feci* (*Formulae Andecavenses* 48)
	Relative Pronoun Strategy	d) *Flumen est Arar, quod per fines Haeduorum [. . .] influit* (Caes. *Gall.* 1,12,1)
↓ −expl	Gap Strategy	e) *infra castrum Vabrensim, quae uillae Ursionis propinquus erat, cum rebus omnibus se muniunt* (Greg. Tur. *Franc.* 9,9)

(Section 2). Comrie (1981: 139–146) speaks of *relativization strategies* and identifies four prototypical cases (Table 5): Nonreduction Strategy (Section 3.3.1), Resumptive Pronoun Strategy (Section 3.3.2), Relative Pronoun Strategy (Section 3.3.3), and Gap Strategy (Section 3.3.4).[83] The pre-

83. Comrie's classification (1981) explicitly draws on Maxwell (1979), who defines the four relativization strategies in transformational terms; Comrie and Keenan (1979: 659) reinterpret them in terms of the relation existing between the surface structures of the relative clause and the independent declarative clause. Comrie (1998, 2002) proposes further refinements to the model.

vailing strategy in Latin is doubtless the Relative Pronoun Strategy; however, occurrences of Nonreduction Strategy can also be found, as well as some harbingers of Resumptive Pronoun Strategy, and perhaps of Gap Strategy.

3.3.1. Nonreduction Strategy

By Nonreduction Strategy we mean that the nominal head stays within the relative clause in its full, unreduced form (lexical head), in the typical position and case of noun phrases which have the same function in an independent clause. These relative clauses are thus internal-headed (Section 2.1), since they are saturated from the point of view of relativization operations (Section 3.1.3). A prototypical instance of this strategy is shown in (86) from Diegueño (Kumiai), a Yuman language spoken in California.

(86) *tənay ʔəwa: ʔəwu:w -pu -L^y ʔciyawx*
[yesterday house I-saw] DEF LOC I-will-sing
'I will sing in the house I saw yesterday.' (Comrie 1981: 138)

The relative clause in (86) is identical to an independent clause, but it is followed by the suffixes *-pu-L^y* which make it a constituent of the matrix clause in the function of a definite locative.

In Latin this strategy has no pure form, since the presence of a relative pronoun in addition to the lexical head is always required: we can thus speak of a mixed strategy. With this difference from the prototype, two essential subtypes of Nonreduction Strategy can be detected in Latin.

In one of them – what can be called in short "internal-headed relative clause" – the relative clause is basically a constituent of the matrix clause, as happens in Table 5 (a). In this subtype the lexical realization of the pivot in the matrix clause is not possible, and its representation through a dummy element working as a place marker is exceedingly rare ((124); Sections 2.1, 2.2.1).

On the other hand, in the other subtype there can be a lexical head – as in the text cited in Table 5 (b) – or a representation of the pivot through an anaphor in the matrix clause (Section 4.1). This is the construction customarily defined correlative, in the sense of the normal diptych (Haudry 1973),

which plays a key role in the development of Latin relative clauses (Section 5.1.1).[84]

3.3.2. Resumptive Pronoun Strategy

In the prototypical Resumptive Strategy, the relativized noun phrase is not present in the relative clause as a lexical head but is represented by a resumptive pronoun, which stays in the same position or the same case the relativized element would occupy in an independent clause: its function is just to mark the relativized syntactic position.

The Resumptive Strategy is regarded as less explicit than the Nonreduction Strategy, since the presence of a pronoun, rather than a lexical head, in the relative clause implies the reconstruction of the anaphoric relationship to identify the referent in order to interpret the relative construction.

The Resumptive Strategy is attested in several languages, including non-standard levels of Romance languages (87).

(87) *L' uomo che gli ho detto*
the man that him I.told
'The man whom I told'

In this example, since the relative clause is introduced by the complementizer *che* – which in itself gives no information about the relativized element – it is the personal pronoun *gli* that signals that this element is an indirect object. In languages like Arabic (n. 56) or Persian, the resumptive pronoun is compulsory, except in the relativization of the subject, where it is not allowed, and the relativization of the direct object, where it is optional; in other words, it behaves like an anaphor, which may not be realized in argumental easily recoverable positions.

As for Latin, cases of co-occurence of the relative pronoun with another pronoun can already be found in the early stages, even if they become more frequent in post-Classical, and especially in Christian, texts (Sections 5.3, 5.4), as shown in Table 5 (c.1). These cases, which are usually regarded as

84. The correlative is a mixed strategy from a typological perspective as well, since, besides the semantic nucleus, the relative pronoun too is always present in the relative clause; see Comrie (1981: 139).

pleonasms, can be considered anticipations of the Resumptive Pronoun Strategy; they can in substance refer to requirements of information structure. Very late in the history of Latin, some cases can also be found which are much closer to the prototypical Resumptive Strategy, as shown in Table 5 (c.2). They arise from the progressive gradual blurring of morphological distinctions, which will convert Latin relative pronouns into complementizers in many Romance languages (Section 5.1.4).

3.3.3. Relative Pronoun Strategy

In the Relative Pronoun Strategy, the relativized element is represented by a relative pronoun, which is normally fronted. Beyond this function of marking the relativized position, the relative pronoun always takes the function of a complementizer (Section 1.3.2): for example, the pronoun *quod* in Table 5 (d) gathers together the functions of both the resumptive *gli* and the complementizer *che* in (87). Moreover, in this case – which is its prototypical realization – the relative pronoun always has an attribution function as well (Lehmann 1980: 248–249). This threefold role explains why the presence of the relative pronoun is never optional according to rules of anaphora, as happens instead with the resumptive pronoun in the Resumptive Strategy (Section 3.3.2).[85]

The Relative Pronoun Strategy is regarded as less explicit than both the Nonreduction and the Resumptive strategies, because the fronted position of the relative pronoun may imply a linear order of the relative clause which is very different from the basic order (Comrie 1981: 143). In a crosslinguistic perspective, the Relative Pronoun Strategy is rather marginal (Comrie 1981: 142).

In Latin, on the contrary, this strategy is the fundamental one, to which all other strategies must be referred. Moreover, in a language like Latin the ini-

85. See Lehmann (1984: 227): "einmal Relativpronomen – immer Relativpronomen". According to Lehmann (1984: 248–250), the concept of relative pronoun must be regarded as prototypical by nature. In the Relative Pronoun Strategy it performs all of its three specific functions; conversely, in the Nonreduction Strategy and the Resumptive Pronoun Strategy it performs only the functions of subordination and attribution, in the first case because the clause is saturated (Section 3.3.1) and in the second one because the empty place is marked by a specific pronoun, i.e., an anaphor (Section 3.3.2).

tial position of the relative pronoun does not necessarily alter the basic word order, as happens in other languages with a rigid linear order, like English.[86]

Relative clauses introduced by adverbs should be ascribed to the Relative Pronoun Strategy rather than to the Gap Strategy, since adverbs not only subordinate, but also give a hint of the syntactic and semantic function the relativized element fulfills within the relative clause (Section 1.3.1).

3.3.4. Gap Strategy

The Gap Strategy does not show any direct hint of the relativized position; therefore it is not a very explicit strategy. Consider in this regard the English example (88).

(88) *The man (that) I saw*

The possible presence of *that* does not change the type of strategy: as a complementizer, its function is only to mark the subordination and not the syntactic position of the relativized noun phrase. Whereas English does not use the Gap Strategy for the subject position, Persian does; in both languages the direct object position can optionally be relativized through this strategy. This also happens in Japanese, where the relative clause however precedes the head it modifies.

(89) *Gakusei ga katta hon*
[student NOM bought] book
'the book that the student bought' (Comrie 1998: 70)[87]

As far as Latin is concerned, the constant presence of the relative pronoun excludes the possibility of a true Gap Strategy. However, in very late

86. In Latin the relative pronoun may also not be fronted, especially in poetry; cf., e.g., Verg. *georg*. 1, 5–6: *uos, o clarissima mundi / lumina, labentem caelo quae ducitis annum*; in this connection see Touratier (1980: 151) and specifically Deecke (1907: 5–53).

87. In refinements of the model, Comrie (1998: 70, 2002: 95) actually considers the Japanese-type relative clauses to be different from examples like (88), above all because they can have the same internal structure as an independent clause (*gakusei ga katta* vs. **the student bought*). According to him, the link between Japanese relative clauses and their head noun is pragmatic rather than syntactic.

stages, when the relative pronoun has almost lost its morphological distinctions, there are some occurrences – as in Table 5 (e) – which seem very close to the situation in Romance languages, which develop a true Gap Strategy (Section 5.1.4).

3.3.5. Concurrence of strategies

A language may have more than one relativization strategy. In this case, the selection of the strategy is linked to the accessibility hierarchy, according to the principle that a syntactic function which is more difficult to relativize requires a more explicit strategy and vice versa (Comrie 1981: 141–142, 156).

In Persian, for instance, there is a kind of complementary distribution between the Gap Strategy and the Resumptive Pronoun Strategy. Subjects, which occupy the most accessibile position, are relativized almost exclusively through the Gap Strategy, while lower syntactic positions must be relativized through the Resumptive Strategy; for direct objects, both strategies can be employed.

In Latin, the constant presence of the relative pronoun excludes an effective concurrence of strategies (Lehmann 1984: 212, 228); even if the Relative Pronoun Strategy can be regarded theoretically as a not very explicit one (Section 3.3.3), it can relativize all syntactic positions, not only the higher ones.

3.3.6. Participle Strategy

The Participle Strategy is a relativization strategy realized through a nonfinite verb form. Considering that the participle is a nominal form of the verb (Section 1.5.1) and the relative clause is an unsaturated nominalized clause (Sections 3.1.1, 3.1.3), the difference between a participle and a relative clause with a finite verb primarily concerns the degree of nominalization. The relevant features in this case are not only those relating to the finiteness of the verb, but also those concerning the expansion of the clause (n. 73), since the information-encoding through participles is usually reduced. According to Lehmann (1984: 156), constructions with a participle are in fact marked by a greater conciseness, true relative clauses by a greater "yield" (*Leistung*), where "yield" signifies 'variability'.

This can also be seen in another relativization operation, namely, empty-place formation (Section 3.1.3).[88] From this point of view it is clear that participles are more grammaticalized than true relative clauses. In fact, while the empty place in relative clauses can be marked by a pronoun, relative (Section 3.3.3) or resumptive (Section 3.3.2), or even saturated by a lexical head (Section 3.3.1), with participles it can only be occupied by a lexical head, which is, however, a constituent of the matrix clause. The insertion is thus direct, without the mediation of a phoric relationship, in one direction or another.[89] This behavior is perfectly analogous to what happens with simple attributes and favors the prenominal position, which is more frequent with participles than it is with relative clauses.

The stronger grammaticalization of the participle is coherent with a difference linked to the type of attribution (Section 3.1.2); in the case of the participle it is always explicit and the relation with the head, which is immediate, can be left unmarked. In this sense the Participle Strategy is fairly close to the least explicit relativization strategy, the Gap Strategy (Section 3.3.4). On the other hand, one might think that it is not necessary to mark the relation with the head through a phoric element because there is usually an orientation to the higher position in the accessibility hierarchy, that is, to semantic roles corresponding to the first argument.[90] This is doubtless the situation in Latin, where we can see a prototypical concurrence (Section 3.3.5) between the Participle Strategy and other relativization strategies, which all require the presence of the relative pronoun. In these conditions, participles and true

88. The necessity of not evaluating the difference between attributive participles and true relative clauses solely according to the degree of nominalization is stronger if we consider the possibility of the existence of nominal relative clauses as well as verbal ones (Section 1.5).
89. This is a big difference which concerns typological definitions, at least as regards the sharing of a pivot between the relative clause and the matrix clause (Section 1.2.1).
90. Actually this cannot be considered a true argumental relation: the fact that the relative clause is as a rule an unsaturated clause means that it is a clause which has the gap of a constituent linked to the verb by a relation as an argument or an adjunct. That the participle is an unsaturated nominal form of the verb means, on the contrary, that it is a form with a slot where the head enters into a modification relation which can also be defined as "orientation". On this difference see Lehmann (1985).

relative clauses are placed at the two extremes of the continuum that joins them.

(90) Caes. *civ.* 2,36,3: *nuntii praemissi ab rege Iuba uenerunt*
'couriers, who had been sent forward by king Juba, arrived'

(91) Caes. *civ.* 3,15,6: *loquuntur ambo ex nauibus cum M. Acilio et Statio Murco legatis, quorum alter oppidi muris, alter praesidiis terrestribus praeerat*
'they both called from on ship–board to Manius Acilius and Statius Marcus, the lieutenants, one of whom commanded the town, the other the guards on the coast'

Other languages, on the contrary, have true *relative participles* – that is, participles which can be oriented to semantic roles corresponding to several positions on the Accessibility Hierarchy; this is the case, for instance, in Dravidian languages, or in Lezgian (Nakho-Daghestanian). Consider (92) from Lezgian.

(92) a. *čar* *kx̂i-zwa-j* *ruš*
letter.ABS write-IMPF-PART girl
'the girl who is writing a letter'

b. *ruš-a* *kx̂i-zwa-j* *čar*
girl-ERG write-IMPF-PART letter
'the letter which the girl is writing'

c. *ruš-a* *čar* *kx̂i-zwa-j* *stol*
girl-ERG letter.ABS write-IMPF-PART table
'the table on which the girl is writing a letter' (Haspelmath 1994: 154)

These examples show the same participle modifying a head which can be the agent (92a) of the state of affairs it encodes, the theme (92b), or even the locative (92c).[91] Still closer to the pole of true relative clauses are occurrences like the Turkish participle in (93). This is in fact a construction with a

91. See Haspelmath (1994: 154), who speaks of "contextually oriented participles". This is in fact an invariable form which is, however, participial, since it functions as a verbal adjective.

participle oriented to a constituent of the subordinate clause linked to a constituent of the matrix clause through a phoric relationship, although it is an affixal one.

(93)	*oğl-u*	*mekteb-e*	*gid-en*	*adam*
	[son-POSS.3	school-DAT	go-PART]	man

'The man, whose son goes to school' (Lehmann 1984: 377)

3.4. Position of relative clauses

Lehmann (1984: 48–49) classifies relative clauses according to a series of oppositions, the first of which distinguishes embedded from adjoined relative clauses.[92] A relative clause is *embedded* when it is a constituent of the same noun phrase that contains the head it modifies, so that the relative construction is a noun phrase of the matrix clause. Otherwise, the relative clause is *adjoined* (Section 3.1.1). An embedded relative clause is *adnominal* if it is a constituent distinct from its nominal head, while it is *circumnominal* if it contains its head. An adnominal relative clause may precede (*prenominal*) or follow (*postnominal*) its head. The two types of adnominal relative clause should not be confused with the two types of adjoined relative clause, which may precede (*preposed*) or follow (*postposed*) the main clause.

A final opposition, which cuts across the distinction between embedded and adjoined relative clauses, includes preposed and circumnominal relative clauses,[93] since these two types have an internal head, whereas all other types are external-headed relative clauses (Table 6). It is worth noting that in principle this classification is limited to relative clauses having a lexical head, be it an internal or an external one (Section 2.1). In Latin, every box in the following schema can easily be filled.

92. For a discussion and an adaptation of the syntactic classifications proposed by Lehmann (1984) and previously by Downing (1978), see de Vries (2002: 20–23).

93. As regards the classification of the relativization strategies (Table 5), the circumnominal relative clause corresponds to the true head-internal relative clause (a), the preposed relative clause to the correlative (b).

Table 6. Positional types of relatives clauses (Lehmann 1986: 666)

	adjoined	embedded
internal-head	preposed (94)	circumnominal (95)
external-head	postposed (96)	adnominal { postnominal (97) prenominal (98)

(94) Caes. *Gall.* 7,84,2: *quae minime uisa pars firma est, huc concurritur*
'they concentrated on whatever part of the works seemed weakest'

(95) Caes. *Gall.* 2,21,1: *Caesar necessariis rebus imperatis ad cohortandos milites, quam in partem fors obtulit, decucurrit*
'Caesar, having given the necessary orders, ran down in a chance direction into whatever quarter fortune carried him, to encourage the troops'

(96) Caes. *Gall.* 1,2,5: *pro multitudine autem hominum et pro gloria belli atque fortitudinis angustos se fines habere arbitrabantur, qui in longitudinem milia passuum* CCXL, *in latitudinem* CLXXX *patebant*
'they could not but consider that the territory that they occupied which extended 240 miles long and 180 miles acrosss, was all too narrow for their population and for their renown for warfare and bravery'

(97) Caes. *Gall.* 4,20,3: *neque enim temere praeter mercatores illo adit quisquam, neque his ipsis quicquam praeter oram maritimam atque eas regiones quae sunt contra Galliam notum est*
'for no one except merchants generally dares to go there, and even traders know nothing except the seacoast and those parts which are across from Gaul'

(98) Caes. *Gall.* 6,5,2: *Cauarinum cum equitatu Senonum secum proficisci iubet, ne quis aut ex huius iracundia aut ex eo, quod meruerat, odio ciuitatis motus existat*
'he orders Cavarinus to march with him with the cavalry of the Senones, so that no commotion should arise either from his hot temper, or from the hatred of the state which he had earned'

Alongside these cases, which confirm the predictions of the general schema, Latin presents a much richer set of phenomena (Section 4).

4. Relative clause typology in Latin

In this section the features of Latin relative clauses are analyzed and classified according to their position type (Section 3.4). Since in Lehmann's (1984) classification the positions of relative clauses in relation to the lexical head, on the one hand, and the matrix clause, on the other, intersect, some cases of relative clauses without a lexical head are included here.

4.1. Preposed relative clauses

A relative clause is preposed when it is left-adjoined to the matrix clause. In Latin this adjunction gives rise to a *correlative* structure, namely a normal diptych in Haudry's (1973) terms (Section 5).

Correlative structures are characterized by a resumptive element in the matrix clause. In Latin it is an anaphoric, nominal or pronominal, element. If it is a noun, it can never be a bare noun (Section 2.2.1), since it must always be accompanied by a determiner (Table 5 (b)); if it is a pronoun, it can be phonetically realized (99) or not (100).

(99) Caes. *Gall.* 1,12,6: *quae pars ciuitatis Heluetiae insignem calamitatem populo Romano intulerat, ea princeps poenas persoluit*
'that part of the Helvetian state which had brought a signal calamity upon the Roman people was the first to pay the penalty'

(100) *CIL* I^2, 614: *L. Aimilius L. f. inpeirator decreiuit utei quei Hastensium seruei in turri Lascutana habitarent Ø leiberei essent*
'L. Aemilius, son of Lucius, victorious general, decreed that the slaves of the Hastenses who lived at Turris Luscitana should be free'

The function of the anaphor is to represent the syntactic position of the pivot within the matrix clause: the more difficult it is to recover this information, the more often it occurs. The occurrence of the anaphor follows the

same rules as the occurrence of the pronoun with relative clauses without a lexical head (Section 2.2): the anaphor is usually not missing when its case is different from the case of the relative pronoun, especially for syntactic functions other than subject and direct object (Lehmann 1984: 258) (101). The anaphoric resumption can be an adverb, too (102).

(101) Cic. *Verr*. II 5,176: *quibus excusationibus antea nimium in aliquo iudicio studium tuum defendere solebas, earum habere in hoc homine nullam potes*
'in the case of this man you can have none of those excuses with which you formerly used to defend your excessive zeal in any trial'

(102) Cato *agr*. 34,2: *quae loca sicca et non herbosa erunt, aperta ab umbra, ibi triticum serito*
'plant wheat in soil that is dry, free from weeds, and sunny'

The fact that the resumptive element performs a syntactic function within the matrix clause clearly shows that the relative clause is not a constituent of the latter; that is, it is not embedded in the matrix clause. Moreover, the fact that it follows the head it refers to[94] – as happens as a rule between two independent clauses – is closely linked to the type of subordination which holds between the preposed relative clause and the matrix clause. In this case, the two clauses are reciprocally linked only by the impossibility of their occurring alone, since they must necessarily follow one another.

From the point of view of relativization operations, this means that the subordinating linkage between a preposed relative clause and its matrix clause is very weak, at a borderline between parataxis and hypotaxis. Indeed, preposed relative clauses can sometimes be within the main clause, but in this case matrix and main clause do not coincide (100).[95] As for the degree of nominalization, what is expected crosslinguistically is that preposed relative

94. Cases like Plaut. *Persa* 694: *mandatae quae sunt uolo deferre epistulas*, where the relative clause is preposed but the lexical head lies in the matrix clause, can be regarded as exceptions in which an inversion of the nucleus can be supposed (Lehmann 1984: 206).

95. Cf. also, among others, Cic. *Verr*. II 1, 79, with repetition of the head: *intellego, in qua ciuitate non modo legatus populi Romani circumsessus, non modo igni, ferro, manu, copiis oppugnatus, sed aliqua ex parte uiolatus sit, nisi publice satis factum sit, ei ciuitati bellum indici atque inferri solere*.

clauses lie fairly close to the pole of sententiality (Section 3.1.1). As far as the employment of moods is concerned, Latin preposed relative clauses have the indicative as a rule; they may be in the subjunctive, however, for structural reasons – when they have a certain degree of embedding – such as when they are in correlation with a matrix clause which is not identical with the main clause (100). From the point of view of expansion, preposed relative clauses are usually full clauses.

Since they have an internal head, they are not open clauses because they have no empty place (Section 3.1.3). This implies that the relative pronoun co-occurring with the lexical head has no resumptive function in this case and that it does not mark the relativized position, which is already occupied, but rather just subordinates and attributes.

The type of attribution of preposed relative clauses is an instance of implicit attribution and, in particular, implicit concept building (Section 3.1.2). Implicit attribution automatically occurs in the presence of indefinite non-generic noun phrases, but it does not imply in itself any subordination, since it may also occur in the sequence of two independent clauses (79). In the case of preposed relative clauses, however, there is a grammaticalization process, which comes about through an operation of nucleus formation (*Nukleusbildung*). This operation is allowed by the presence of the pronoun *qui quae quod*, which marks the noun in the preposed relative clause that lays the basis for the complex concept to be built through attribution. This way, this noun becomes a lexical head, while at the same time the rest of the clause orients itself to this head and is saturated by it. From the sequence of two independent, textually linked, clauses we pass to the sequence of a correlative clause and its matrix clause, inextricably linked in a complex structure. This process creates a grammatical alternative to explicit attribution (Section 5.1.1).

From the point of view of relativization strategies, Comrie (1981) regards correlatives as a subtype of the Nonreduction Strategy, mixed with the Relative Pronoun Strategy (Section 3.3.1). This implies that, when a lexical head appears in the matrix clause, it is a form of repetition of the head. This is an archaic usage, perhaps tied to parallelism intrinsic to the correlative structure (Section 5.1.1).[96]

96. See, e.g., Kühner & Stegmann (1914, 2: 283), Hofmann & Szantyr (1965: 563–564),

If the classification of relative constructions also takes into account cases where there is no lexical head – but where there are some semantic features, such as animacy (Sections 2.2.1, 2.3) – we can ascribe to preposed relative clauses those clauses introduced only by the relative pronoun which precede their matrix clauses. The treatment of these clauses together with preposed relative clauses realized by the Nonreduction Strategy can be justified by their occurrence in examples like (51), from which the probable equivalence between correlatives and free relative clauses appears. Since the early period, in these cases the lack of an anaphor (103), rather than its presence (104), in the matrix clause is more frequent than it is in the Nonreduction Strategy.[97] Preposed free and pronominal relative clauses introduced by a phoric element (Section 2.2) share with preposed relative clauses realized through the Nonreduction Strategy the same maximalizing semantics (Section 2.2.4).[98]

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who speak of *Wiederholung des Beziehungswortes*. Regarding the other relativization strategies, we may only remark that it is sometimes claimed that pleonastic forms with a resumptive pronoun (Section 3.3.2) derive from a reanalysis of a correlative structure with a pronominal resumption (Section 5.1.4).

97. In the case of free relative clauses, the resumption in the matrix clause through a bare noun is excluded, since the free relative clause would otherwise become an external-headed, prenominal relative clause.

98. Of course, there are important differences between preposed relative clauses realized through the Nonreduction Strategy and those realized as free or pronominal relative clauses introduced by a phoric element from the point of view of relativization operations. As for subordination, first of all, the lack of anaphoric resumption in free relative clauses may create ambiguity between a reading as an adjoined – that is, truly preposed – relative clause and a reading as an embedded relative clause (Section 4.5). The greater integration of free relative clauses in initial position is shown also by their frequent occurrence in the subjunctive (perhaps because these relative clauses are the protasis of an *if*-sentence (22) and by their lesser clausal expansion. Also, an example like Cic. *Tusc.* 5,45: *quicquid est, quod bonum sit, id expetendum est; quod autem expetendum, id certe adprobandum; quod uero adprobaris, id gratum acceptumque habendum* can be referred to as an argument for the more internal position of preposed free and pronominal relative clauses with regard to preposed relative clauses realized through the Nonreduction Strategy. This is true at least in one of two possible interpretations, where there is a pause after *quicquid est* and thus *quod bonum sit* is not the nominal part of the predicate. Moreover, since free relative clauses are by definition relative clauses without a lexical head, it is difficult to speak of empty-place formation; according to Lehmann (1979: 19), the relative pronoun not only represents the nucleus, but contains it. Likewise, we cannot speak of nucleus formation, as far as attribution is concerned.

(103) Plaut. *Bacch.* 816–817: *quem di diligunt / adulescens moritur*
'he whom the gods love dies young'

(104) Cic. *fin.* 3,28: *ita fit, ut, quod bonum sit, id etiam honestum*
'so it turns out that what is good is also honest'

As for the accessibility hierarchy, even if the Nonreduction and the pure Relative Pronoun strategies – that is, free and pronominal relative clauses introduced by a phoric element – are regarded as comparable, no real concurrence between the two types can be found. While, in fact, one could expect that the Nonreduction Strategy is dedicated to the lower positions in the accessibility hierarchy, data show that occurrences with a nominative or an accusative case are the majority. This does not mean that occurrences of the Nonreduction Strategy cannot be found in the relativization of constituents of coordinate structures (105) or other clauses subordinate to the relative clause (106).[99]

(105) Caes. *Gall.* 2,21,6: *quam quisque ab opere in partem casu deuenit quaeque prima signa conspexit, ad haec constitit*
'whatever part any one came to by chance from the works, and whatever standards he saw first, at these he stood'

(106) Caes. *Gall.* 6,20,1: *quae ciuitates commodius suam rem publicam administrare existimantur, habent legibus sanctum, . . .*
'Those states which are considered to run their commonwealth more judiciously, have it ordained by their laws, that . . . '

A concurrence of strategies is not possible even between the relative clauses introduced by a relative pronoun and the Participle Strategy. It is ruled out first by the orientation of participles to an external lexical head. Moreover, since preposed relative clauses have a maximalizing semantics, they would have to be participles with a referential value; that is, participles which have undergone a conversion to noun, which would be distinguished from the relative clauses introduced by a relative pronoun at least by sententiality. Finally, they would have to be able to be resumed in the matrix clause by an anaphor – to rule out the correspondence with circumnominal relative clauses – and this

99. For the type *quam quisque norit artem,* see Rosén (1998).

is not possible for participles, since their relation with the modified lexical head can never be mediated by a phoric element (Section 3.3.6).

Indeed, it is likely that at the basis of the relative construction there was a complementary distribution with participle constructions, which could not perform the functions of preposed relative clauses (Section 5).

4.2. Prenominal relative clauses

Prenominal relative clauses precede their lexical head. In most cases (98), they are inserted between a cataphoric pronoun and their lexical head. From a typological point of view, they are a type of relative clause which can prevail only in languages with a rigid SOV basic order (Lehmann 1984: 183–184); therefore, this is not a predominant strategy in Latin.

Prenominal relative clauses are embedded and are at the pole of maximum nominalization (Section 3.1.1). In most cases their expansion is limited to the verb and the constituent represented by the relative pronoun.[100] As for moods, prenominal relative clauses can take both the indicative, as in (98) or (109), and the subjunctive, for example by *attractio modi*, as in (107).

(107) Caes. *Gall.* 5,38,2: *hortaturque, ne sui in perpetuum liberandi atque ulciscendi Romanos pro iis quas acceperint iniuriis occasionem dimittant*
'and he encourages them that they should not throw away the opportunity of liberating themselves forever and of punishing the Romans for those wrongs which they had received from them'

An interesting case of the use of the subjunctive in prenominal relative clauses can be found in adverbial uses, in particular with a purpose value (7). The prenominal position of the purpose relative clause is in fact due to its

100. It is precisely the very low degree of sententiality of prenominal relative clauses which allows them to exist, since in conditions of greater heaviness the realization of the postnominal variant is much more likely (Lehmann 1984: 183). In Latin, cases of prenominal relative clauses with a high degree of sententiality usually also allow a circumnominal reading (Section 4.5): see, e.g., Caes. *Gall.* 4,21,4: *huc naues undique ex finitimis regionibus et quam superiore aestate ad Veneticum bellum fecerat classem iubet conuenire*.

role as a binder between the preceding and subsequent clauses – that is, due to reasons of text grounding.[101]

Since prenominal relative clauses are adjacent to their heads, they are explicit attributes (Section 3.1.2). Indeed, among all relative clauses the prenominal type is the closest to the simple attribute. In simple attributes the syntactic function of the open empty place is fixed *a priori*; this is exactly what happens when the prenominal relative clause is realized through the Participial Strategy (Section 3.3.6; (108)).

(108) Caes. *Gall.* 2,23,2: *rursus resistentes hostes redintegrato proelio in fugam coniecerunt*
'once again they chased away the enemy, who had returned and were opposing them'

In the case of prenominal relative clauses introduced by a relative pronoun, it is the latter that marks the empty-place formation; in this case, however, the normal anaphoric relation is reversed, since the referent follows the clause in which it is referred to. This is possible only in conditions of strong subordination, the same conditions which prevent the cataphor, which can only be pronominal, from being freely realized (Section 3.1.3).

In fact, prenominal relative clauses are usually realized through the pure Relative Pronoun Strategy (Section 3.3.3). Conversely, the Resumptive Strategy (Section 3.3.2) is impossible; furthermore, prenominal relative clauses cannot be realized through the Nonreduction Strategy (Section 3.3.1) since they are never internal-headed; in such a case there would be an extraposed

101. That the reason is linked to text grounding is also shown by the extraposed position of the anaphoric pronoun *ea* in (7), which is the element of the sentence that in fact realizes the topic continuity. On the link between position of purpose clauses and text building see in particular Thompson (1985) on English. See de Vries (2002: 29) for an argument in favor of the substantial nonexistence at the typological level of appositive prenominal relative clauses, which in that case would be free relative clauses; the same opinion is shared by Lehmann (1979: 14, n. 32), who quotes Plaut. *Amph.* 26: *etenim ille, cuius huc iussu uenio, Iuppiter*. The adverbial value of the relative clause in (7) seems, however, to show its appositive nature clearly. Lavency (1998: 18, 24–26) even regards such cases as *attributs* of the verb, that is, dependent on the verb, as only a predicative can be. He also emphasizes that the purpose interpretation given by tradition is conditioned by the semantics of the governing verb.

circumnominal relative clause, which by definition contains its nominal head (Section 4.5). Indeed, many cases are ambiguous, having two possible readings, as in (109).[102]

(109) Caes. *Gall.* 5,43,6: *tertiae cohortis centuriones ex eo quo stabant loco recesserunt*
'the centurions of the third cohort pulled back from the place in which they were standing'

As for the accessibility hierarchy, since prenominal relative clauses are the most nominalized ones, they are supposed to be the least available to relativize lower syntactic positions (Section 3.1.1). However, while all participial prenominal relative clauses necessarily relativize only the subject position (108), prenominal relative clauses introduced by relative pronouns can also relativize some of the lower positions, as in (109), even if they cannot reach the lowest positions.[103] In this case we can thus speak with good reason of concurrence of strategies.

102. See also n. 100. In general it should be noted that the position of the relative clause before its "lexical head" seems sometimes due to reasons of information structure, so that the bare noun that follows the relative clause might be regarded as an afterthought rather than as a true head. According to Lavency (1998: 37), however, this is an unusual word order; Lehmann (1984: 386) also thinks that prenominal relative clauses are rather rare structures. There are some, however, even in the classical period; of those present in *de bello Gallico*, 40 % are preceded by forms of the pronoun *is*; in one case we have *eodem illo* instead (6,37,1: *eodem illo quo uenerant cursu … conantur*). Concerning (103) in particular, Touratier (1980: 185) regards *loco* "dans la relative" – that is, considers the relative clause a circumnominal – since he claims that if *loco* were a constituent of the matrix clause, *ubi*, and not *quo*, should appear in the relative clause. But cf. Caes. *Gall.* 1,27,2: *in eo loco quo tum essent*.

103. In this regard cf. also Caes. *Gall.* 6,37,1: *hoc ipso tempore casu Germani equites interueniunt protinusque eodem illo quo uenerant cursu ab decumana porta in castra inrumpere conantur*; it should be noted that in this case a circumnominal reading is possible as well.

4.3. Postposed relative clauses

A relative clause is postposed when it is right-adjoined to the matrix clause.

Since they are adjoined, postposed relative clauses are not constituents of the matrix clause, so they show loose subordination (Section 3.1.1).[104] Moreover, they are weakly nominalized, as shown by the fact that this is the position where relative clauses in a finite mood other than indicative, in particular the imperative and the independent subjunctive, can usually be found ((3)–(4); Section 1.4).[105]

Under these conditions of nominalization, the only possible attribution link between relative clause and matrix clause is implicit attribution (Section 3.1.2); unlike what happens with preposed relative clauses (Section 4.1), in this case it is an additional attribution.

Another difference from preposed relative clauses is that postposed ones are open clauses; that is, they have an empty place (Section 3.1.3). In this case, the relative pronoun has a resumptive value. In particular, it is a free anaphor which follows its referent. Explicitness of the anaphor is inversely related to the implicitness of attribution; freedom in its realization is linked to the weakness of subordination.

From an evolutionary point of view, the postposed relative clause can be regarded as an inverted diptych; that is, the inversion of the normal diptych (Sections 3.3.1, 4.1, 5.1.1). This inversion is not perfectly symmetrical, however, as can be noted from the comparison between (110) and (111), where to

104. From Lehmann's (1984: 203–206) point of view, in languages with a nonrigid basic word order it is difficult to understand whether an adjoined clause should be regarded as extraposed rather than postposed. From his perspective we could also consider the contemporaneous presence of several types of relative clause positions in the same language. In Latin a passage from postposed to postnominal relative clauses can be diachronically supposed (Section 5.1.2); on the other hand, both the heaviness of the relative clause and its possible rhematicity could be counted among the reasons for extraposition.

105. If the postposed relative clause works as an adverbial modifier, the presence of the (dependent) subjunctive (Section 1.4.3) serves precisely to mark subordination, which is not obvious because of the peripheral position: cf., e.g., Plaut. *Mil*. 58–59: *amant ted omnes mulieres, neque iniuria, qui sis tam pulcher*. According to Lavency (1998: 14), in such cases the subjunctive would avoid an interpretation of the relative clause as a relative connection (Section 4.3.1) and would give it a rhematic, rather than a thematic, status.

the schema [relative pronoun+N] . . . [phoric element] in (110) corresponds the schema [phoric element+N] . . . [relative pronoun] in (111), rather than the symmetrical schema [phoric element] . . . [relative pronoun+N].[106]

(110) Caes. *Gall.* 7,29,6: *nam quae ab reliquis Gallis ciuitates dissentirent, has sua diligentia adiuncturum*
'for he would, by his steadfastness, bring over those states which cut themselves off from the rest of the Gauls'

(111) Caes. *Gall.* 3,23,3: *mittuntur etiam ad eas ciuitates legati quae sunt citerioris Hispaniae finitimae Aquitaniae*
'ambassadors are also sent to those states of Nearer Spain which are nearest to Aquitania'

This lack of symmetry with respect to the normal diptych can be traced back to conditions of reference tracking, which cause the lexical head to occur as a rule before the element which is coreferent with it. This is required by information processing in the presence of two equally prominent clauses.

A consequence from the point of view of relativization strategies is that, even if an anaphor in postposed relative clauses is free, the Relative Pronoun Strategy definitely prevails (Section 3.3.3). Nevertheless, postposed relative clauses also show repetition of the head, with a much higher frequency than postnominal relative clauses (Section 4.4).[107] As occurs with postnominal relative clauses, the repetition of the head has lexical restrictions linked to a

106. In this regard see, e.g., Fruyt (2005: 24). The order [phoric+N] . . . [relative pronoun] is the usual one, while the order [phoric] . . . [relative pronoun+N] is extremely rare (124) and should, however, be traced back to circumnominal, rather than to postposed, relative clauses, which are as a rule external-headed.

107. On the other hand, the (pleonastic) Resumptive Pronoun Strategy (Section 3.3.2) is in theory possible with postposed relative clauses since in this case the relative pronoun also works as a place marker for the empty place and it should therefore be fully possible to separate this function from the other two ones (attribution and subordination). However, perhaps due to the later diffusion of the Resumptive Strategy, it is attested almost only in postnominal relative clauses, except for textually dubious cases (cf. Liv. 8,37,8: *M. Flauius tribunus plebis tulit ad populum ut in Tusculanos animaduerteretur, quorum eorum ope ac consilio Veliterni Priuernatesque populo Romano bellum fecissent*) or contexts so far from the clause containing the head noun – as shown also by the different illocutionary force – that should be traced back to the relative connection instead (151).

formulary which originated in the administrative-juridical language when the modification is restrictive (112).[108] Conversely, there are no lexical restrictions in nonrestrictive postposed relative clauses (113).

(112) Caes. *Gall.* 4,32,1: *ii qui pro portis castrorum in statione erant, Caesari nuntiauerunt puluerem maiorem, quam consuetudo ferret, in ea parte uideri quam in partem legio iter fecisset*
'they who were on duty at the gates of the camp reported to Caesar that a greater dust than was usual was seen in that direction in which the legion had marched'

(113) Caes. *Gall.* 1,29,1: *in castris Heluetiorum tabulae repertae sunt litteris Graecis confectae et ad Caesarem relatae, quibus in tabulis nominatim ratio confecta erat, qui numerus domo exisset eorum qui arma ferre possent, et item separatim pueri senes mulieresque*
'in the camp of the Helvetii, lists were found, composed in Greek letters, and were brought to Caesar, in which an estimate had been drawn up, name by name, of the number which had gone forth from their country of those who were able to bear arms; and likewise the boys, the old men, and the women, separately'

Besides cases of exact repetition of the head – which from a textual point of view could be defined as copies – there are also cases of semi-copies (114) or pro-sentences (5).[109]

(114) Caes. *Gall.* 1,7,3: *ubi de eius aduentu Heluetii certiores facti sunt, legatos ad eum mittunt nobilissimos ciuitatis, cuius legationis Nammeius et Verucloetius principem locum obtinebant*
'when the Helvetii are informed of his arrival they send to him, as ambassadors, the most illustrious men of their state (in which embassy Nammeius and Verucloetius held the chief place)'

108. Especially with words like *causa*, *dies*, *locus*, *pars*, *res*; see Hofmann & Szantyr (1965: 563), Lavency (1998: 104), and Lehmann (1984: 240).
109. For the concept of semi-copy see Simone (1990).

All these data confirm that in nonrestrictive postposed relative clauses the repetition of the head answers to needs of clarity in anaphoric resumption, and therefore it seems to be a mechanism of reference tracking employed for reasons of topic continuity. From this point of view, postposed relative clauses seem very similar to relative connection (Section 4.3.1) – so much so that sometimes the difference appears linked to mere choices of punctuation (Lavency 1998: 6, 102–103; Álvarez Huerta 1996: 574) (115).

(115) Caes. *Gall.* 1,13,2: *legatos ad eum mittunt. Cuius legationis Diuico princeps fuit qui bello Cassiano dux Heluetiorum fuerat*
‘(the Helvetii) send ambassadors to him; at the head of which embassy was Divico, who had been commander of the Helvetii, in the war against Cassius’

As for the accessibility hierarchy, postposed relative clauses show the greatest freedom in the relativization of any syntactic position. In this case concurrence with the Participle Strategy (Section 3.3.6) is also possible, as can be seen in the sequence of a postposed participle (*confectae*) and a postposed relative clause in (113). However, according to Lavency (1998: 21), the participle can never occur in postposed relative clauses like (116), with a structure (*is*) *esse* + relative pronoun.

(116) Cic. *epist*. 5,21,2: *ego sum qui nullius uim plus ualere uolui quam honestum otium*
‘I am the one who desired that no autocrat’s violence should prevail over peace with honor’

Actually, these are cleft sentences, whose function is to focus the constituent which precedes the structure *esse* + relative pronoun (Lehmann 1984: 358–363).

4.3.1. Relative connection

Relative connection (*coniunctio relativa*, *relativischer Anschluß*, *relatif de liaison*, *relativo de unión*, *nesso relativo*) refers to the phenomenon that a new sentence starts with a form of the pronoun *qui quae quod*, usually coreferent

with a constituent of a clause that belongs to a previous sentence.[110] Even if the existence of this phenomenon is widely acknowledged,[111] its individuation is sometimes rather difficult, as shown by the comparison between (114) and (115). In particular, it is necessary to ascertain whether it is a phenomenon distinct from nonrestrictive postposed relative clauses. On the other hand, no confusion is possible with restrictive ones, since the relative connection serves not to introduce referents, but to make an additional predication on a referent already identified which is referred to anaphorically.

Among the criteria which may be listed in order to state the identifiability of the relative connection as an independent phenomenon, the most convincing is doubtless the span which can exist between the anaphor and its referent. Consider for instance the context, (117), in which (29) occurs.

(117) Caes. *Gall.* 7,57,1–2: *Labienus ... Luteciam proficiscitur. Id est oppidum Parisiorum, quod positum est in insula fluminis Sequanae. Cuius aduentu ab hostibus cognito magnae ex finitimis ciuitatibus copiae conuenerunt*
'Labienus sets out for Lutetia. This is a town of the Parisii, which is situated on an island on the river Sequana; after his arrival was discovered by the enemy, numerous forces arrived from the neighboring states'

Another criterion which can be called into question is the commutability that in this case the pronoun *qui quae quod* shows with other anaphoric pronouns – such as *is* and *hic* (Lavency 1998: 5), but also *ille* (Bolkestein 1996) – as happens, for example, in Caes. *Gall.* 1,19,1 (= 4,30,1; 6,2,3; 7,18,2; 7,56,1) *quibus rebus cognitis ...* vs. Caes. *Gall.* 1,33,1 (= 2,17,1; 5,11,1; 5,18,4; 7,41,5; 7,86,1) *his rebus cognitis ...* or in Caes. *civ.* 3,46,4 (= *Gall.* 4,26,4) *quod cum animaduertisset ...* vs. Caes. *Gall.* 1,40,1 *haec cum animaduertisset ...* .

110. To make things more precise, the relative connection must be in absolute initial position or at least after a strong punctuation (Lavency 1998: 10). Nevertheless, graphic criteria are less significant, if we bear in mind the conditions of transmission of Latin texts.

111. See, e.g., Kühner & Stegmann (1914, 2: 319–323), Hofmann & Szantyr (1965: 569–572), Kurzová (1981: 46–47), Touratier (1980: 408–452), Lehmann (1984: 274–275), Lavency (1998: 5–11).

As can be noted from these occurrences, this commutability is particularly frequent when the pronoun is inside a "second degree" subordinate clause (Section 3.2.2);[112] in this case, if a subordinating conjunction is present, it is always preceded by the pronoun. Although these structures are frequent, this is not always the case (118).

(118) Cic. *Cato* 59: *multas ad res perutiles Xenophontis libri sunt; quos legite quaeso studiose, ut facitis*
'Xenophon's books are very useful for many purposes. Please go on reading them with attention, as you have always done'

Although from a textual point of view we cannot say that *quos legite* might occur independent of the preceding clause, in this example the pronoun seems to be inserted inside an independent structure, since *quaeso* is parenthetical and the illocutionary force is different from that of the previous clause, for its verb is in the imperative (Section 1.4).[113] Such structures led scholars to regard relative connection as a form of coordination, consistent with its sentence-initial position and the fact that the pronoun can never co-occur with a coordinating conjunction or adverb. However, not all scholars agree.[114] Nonetheless, if it is a subordinating structure, its subordination

112. With reference to the first three books of the *bellum civile*, Bolkestein (1996: 560) estimates that about 29% of the cases of relative connection show a pronoun in the position of the first argument of an ablative absolute. Bolkestein (1996: 554) remarks that such occurrences of the relative pronoun inside a "second degree" subordinate clause do not help to identify this structure, because they are often found in postposed relative clauses as well. Bolkestein (1996: 555) also lists the presence of sentence adverbs (Section 2.1.1), an independent illocutionary force, and the possibility of occurring with the infinitive and the subjunctive in indirect speech as nondistinctive features with respect to appositive postposed relative clauses. On the use of the relative connection in indirect speech see in particular Álvarez Huerta (1996).

113. Besides the imperative, the exhortative subjunctive and the illocutionary force of a question can also be found, e.g. in Cic. *div.* 2,98: *totum hoc "aut etiam aut non" negauit esse necessarium; quo quid dici potuit obtusius?*

114. In the presence of a relative connection, combinations of *qui quae quod* with *et*, *sed*, *at*, *autem*, *uero*, *nam*, *enim*, *igitur*, *itaque* are excluded, because the semantic value of the structure would be equivalent to *et is*, *sed is*, *at is*, *is autem*, *is uero*, *nam is*, *enim is*, *is igitur*, *itaque is*. For an interpretation of relative connection as a kind of coordination see among others Kühner & Stegmann (1914, 2: 319–320), Ernout & Thomas

must be very loose (Lavency 1998: 9) – that is, substantially outside the main clause – since there is a difference from postposed relative clauses, which lie at the margin of the matrix clause (Section 3.1.1). Following Ernout & Thomas (1953: 439), we could propose a reanalysis of relative clauses that are already weakly linked to the matrix clause, just like postposed relative clauses.[115]

This evolution might be due to reasons of information structure. Indeed, a continuative value with respect to the main story line has been supposed for the relative connection (Section 4.3). On the other hand, Lavency (1998: 14), suggests a difference from adverbial postposed relative clauses in the subjunctive in terms of thematicity vs. rhematicity (n. 105). Bolkestein (1996) claims that in the relative connection, *qui quae quod* is always used in nonfocal position, and never as a resumptive for a new topic.[116]

(1953: 438). Oniga (2004: 131), however, talks of a kind of pseudo-subordination, which is used because the connection is felt as a more refined stylistic element; it is in fact a strategy which belongs mostly to literary language, and especially to Caesar, whereas it is rare in Plautus and substantially unknown in Vulgar Latin. On the contrary, according to Touratier (1980: 452), *qui quae quod* always introduces subordinate clauses, also in cases of relative connection. The possibility of occurrence of the infinitive and the subjunctive with relative connection in indirect speech (n. 112) also supports this hypothesis, while the absence of the historical infinitive – which can be found in main clauses only – speaks against an interpretation of full coordination (Bolkestein 1996: 557–558). Indeed, according to Calboli (1985), the relative connection is a phenomenon halfway between coordination and subordination and is linked to the lack of an article which in other languages usually realizes the referential linkage in coordination; on the other hand, subordination has tighter forms of anaphoric connection. Longrée (1996) puts the relative connection closer to the parataxis pole in a continuum which begins from the restrictive relative clause – closer to the subordination pole – and passes through the nonrestrictive attribute relative clause, the subjunctive nonrestrictive relative clause (= *praedicativum*; Section 1.4.3), and the indicative nonrestrictive relative clause “en rallonge”, which is a kind of afterthought and therefore still falls within the orbit of the matrix clause, even if it lies outside the latter.

115. Ernout & Thomas (1953: 439) speak specifically of *glissement*. Moreover, Haudry (1973: 179–180) notes that it is not an original structure, even if there is some uncertainty concerning the genesis of this usage. Besides a reanalysis process (the opposite of what would have happened with English *that*), a stylistic substitution of the relative for a correlative might have occurred (as in the case of *cum inversum*), or we could imagine a trace of the replacement of the root **yo-* with the root **k^{w}o-* in all its uses.

116. More generally, see Kuno (1976) about the topicality of the nucleus of the relative clause,

4.4. Postnominal relative clauses

Postnominal relative clauses follow their lexical head. According to Touratier (1980: 9), it was the typical form of relative clause for the Latin speaker (119).[117]

(119) Caes. *Gall.* 2,9,4: *ibi uadis repertis partem suarum copiarum traducere conati sunt eo consilio, ut, si possent, castellum, cui praeerat Q. Titurius legatus, expugnarent pontemque interscinderent*
'finding a ford there, they tried to lead a part of their forces over it; with the design, that, if they could, they might overcome the fort which Q. Titurius, Caesar's lieutenant, commanded, and might cut off the bridge'

As a rule, postnominal relative clauses are embedded and tend to be nominalized (Section 3.1.1),[118] except for cases of relative clauses which are lin-

while Antinucci and Puglielli (1980) argue that in Somali it is a focus. It is also far less clear how the relative connection fits into relations between discourse segments, even if the resumption over long spans seems in fact to be used to resume the main story line. Bolkestein (1996) attempts to determine the conditions of use of the relative connection in relation to other anaphoric means, in particular with respect to *ille*. From this point of view, *qui quae quod* is different from *ille* and similar to *is* and *hic* at the semantic level, since its reference is more often [−ANIMATE], especially when it is a state of affairs or at any rate an item of propositional content. At the syntactic level it is rather similar to *ille*, as it usually does not resume a subject, but it is unlike *ille* in that it is usually not in the nominative but in much less central syntactic roles, which means that the relative connection is a particularly explicit kind of anaphor.

117. The postnominal relative clause is the least subject to restriction in relation to compatibility with different basic orders, and therefore this position is typologically the most frequent; see Lehmann (1984: 184), who, contrary to Downing (1978: 383), claims that even in SOV languages postnominal relative clauses, far from being exceptional, are more frequent than prenominal and circumnominal relative clauses put together.

118. An argument against the strong nominalization of postnominal relative clauses might be that in some cases such relative clauses have an independent mood, such as the imperative (Section 1.4); however, in all these cases the relative clauses always follow at the same time both the lexical head and the matrix clause (cf. Cic. *rep.* 2,25: *hic ille iam uertetur orbis, cuius naturalem motum atque circuitum a primo discite adgnoscere*) and therefore they can be interpreted either as postnominal or as postposed. In fact, Touratier (1980: 427–429) discusses these examples with reference to the structures which have often led editors to assume a relative connection (Section 4.3.1).

early postnominal but seem structurally less integrated (121); these occurrences are always appositive.[119]

Since postnominal relative clauses are adjacent to their heads, they are explicit attributes (Section 3.1.2). Inasmuch as they are external-headed relative clauses, they are open clauses, where the relative pronoun marks the empty-place formation (Section 3.1.3).

Therefore, the prototypical strategy for this position is the Relative Pronoun Strategy, where the relative pronoun refers anaphorically to an external head. This is the type of relative clause which Romance languages have inherited as the normal type (Section 5.4). Besides the Relative Pronoun Strategy, postnominal relative clauses also show cases of Nonreduction Strategy, which are usually regarded as instances of head reduplication (Lehmann 1984: 236–240; Lavency 1998: 104–105; see also Touratier 1980: 173–180, 304–306). In the case of restrictive relative clauses, these occurrences are very rare and are characterized by strong lexical restrictions ((120); Section 4.3, n. 108).

(120) Caes. *Gall.* 1,49,13: *ubi eum castris se tenere Caesar intellexit, ne diutius commeatu prohiberetur, ultra eum locum quo in loco Germani consederant, circiter passus DC ab his castris idoneum locum delegit*
‘perceiving that (Ariovistus) kept himself in camp, Caesar, that he might not any longer be cut off from provisions, chose a convenient position for a camp beyond that place in which the Germans had encamped, at about 600 paces from them’

119. In this regard see, e.g., Lavency (1998: 46), who speaks of *adjoint de nom* and considers these relative clauses close to parenthetical clauses (e.g., Liv. 24,12,6: *Q. Fabium praetorem – is filius consulis erat – ⟨ad⟩ Luceriam Graccho succedere iubet*) with a thematic value, as opposed to relative clauses in the same position – that is, immediately preceded by a referential expression – but in the subjunctive and with a rhematic value (e.g. Cic. *Verr.* II 4,39: *Diodorus, homo frugi ac diligens, qui sua seruare uellet, ad propinquum suum scribit*). The relative clauses that Lavency (1998: 42–46) calls *épithète de qualification* (17) are also always postnominal. Finally, relative clauses that specify a referential expression – usually a proper noun – introduced by the type *is qui* with or without a lexical head are postnominal as a rule: Cic. *de orat.* 1,62: *Philonem illum architectum qui Atheniensibus armamentarium fecit* vs. Cic. *de orat.* 1,62: *Asclepiades, is quo nos medico amicoque usi sumus*; see Lavency (1998: 29).

Besides these cases, the Nonreduction Strategy is found more frequently in appositive postnominal relative clauses; in this case it is not subject to lexical restrictions but rather presents similarities with head reduplication in appositive postposed relative clauses (Section 4.3) (121).[120]

(121) Caes. *Gall.* 7,59,5: *namque altera ex parte Bellouaci, quae ciuitas in Gallia maximam habet opinionem uirtutis, instabant*
'for, on one side, the Bellovaci, a state which held the highest reputation for prowess in Gaul, were pressing on him'

In postnominal relative clauses there are also cases of pleonastic resumption of the relative pronoun through another pronoun ((157), (159)), which seem to point toward the Resumptive Strategy attested in Romance languages (Section 3.3.2).

For the same reasons – linked to the gradual blurring of case, gender, and number endings which progressively led the Latin relative pronoun to become a complementizer in many Romance languages (Section 5.1.4) – very late in the history of Latin occurrences are also found which might be interpreted as premonitory signs of Gap Strategy, as occurs in Table 5 (e).

Although it might be expected that postnominal relative clauses are especially concerned with the relativization of higher positions in the accessibility hierarchy, as they are nominalized enough, in Latin they can in fact relativize any syntactic position. When they relativize the subject position, there is some concurrence with the Participle Strategy ((29) vs. (30)).

4.5. Circumnominal relative clauses

Lehmann (1984: 48) defines a circumnominal relative clause as a relative clause that contains its lexical head (Section 3.4). Lehmann (1984: 109) fur-

120. According to Lavency (1998: 101–103), in cases like (121) an appositive is "inserted" within the relative clause; they would thus be equivalent to what happens in examples like (154). The solution with "external apposition" would be the preferred order in the presence of an adjective modifying the appositive (Cic. *epist.* 10,15,3: *itaque in Isara, flumine maximo quod in finibus est Allobrogum* ...): see Kühner & Stegmann (1914, 2: 313), Touratier (1980: 171–172), and Lavency (1998: 102).

ther specifies that, from a typological point of view, two types of circumnominal relative clauses can be found, namely unmoved relative clauses, whose lexical head is in the syntactic position adequate for its function, and relative clauses with an extraposed lexical head, that is, a preposed or postposed one.

The first type can be exemplified by the same examples that show the concept of prototypical Nonreduction Strategy, such as (86) from Diegueño. In Latin, occurrences such as (95), which of course also have a relative pronoun and can be found up to the classical period, can be tied to the unmoved type. The difference from correlative clauses (Section 4.1) – to which circumnominal relative clauses are very similar[121] – lies in the fact that while preposed relative clauses are adjoined, circumnominal relative clauses are embedded in the matrix clause. This distinction is not very clear cut where anaphors are lacking, in the many cases where an internal-headed relative clause precedes the main verb, especially when the missing anaphor would refer to the subject (100).

As for extraposition, examples of circumnominal relative clauses with a preposed (122) or a postposed (123) head can be found in Latin.

(122) Plaut. *Amph.* 1009: *Naucratem quem conuenire uolui, in naui non erat*
‘Naucrates, whom I wanted to get hold of, wasn’t on the ship’

(123) Ter. *Andr.* 3: … *populo ut placerent quas fecisset fabulas*
‘(…) that the plays he should compose might please the public’

The anteposition or postpostion of the lexical head could be a mere fact of linear order, bound to the lack of rigidity in word order (Lehmann 1984: 122). In Latin, the difference between extraposed circumnominal relative clauses and postnominal or prenominal ones lies in the fact that the case of the lexical head shows that the latter belongs to the relative clause (internal head) rather than to the matrix clause (external head). Instances of head anteposition are regarded as cases of *attractio inversa* (Section 2.3.1) in traditional grammar, since the lexical head is considered external and therefore attracted in the

121. Both preposed and circumnominal relative clauses can be the main relativization strategy almost exclusively in SOV languages (Lehmann 1984: 178).

case of the relative pronoun.[122] Instances of head postposition cannot always be distinguished from cases of prenominal relative clauses where the relative pronoun and the external head necessarily have the same case ((109), (128), and Section 4.2).

From the point of view of relativization operations, a difference between prenominal and circumnominal relative clauses lies in the fact that, under the same embedding conditions, the expansion of circumnominal relative clauses is usually greater than the expansion of prenominal ones; this derives from the stronger nominalization of prenominal relative clauses (Section 3.1.1). As regards the use of moods, circumnominal relative clauses can take both the indicative ((95), (122)) and dependent subjunctive (123).[123]

Unlike what happens with prenominal relative clauses, but like preposed ones, attribution is implicit and nucleus formation takes place through the presence of the relative pronoun (Sections 3.1.2, 4.1).

As in preposed relative clauses, the relative pronoun has no resumptive value because of the presence of the internal head (Section 1.3.2). Even if the lack of a phoric resumption in the matrix clause distinguishes circumnom-

122. On this hypothesis see Touratier (1980: 150–153), who refutes the possibility – first claimed by Bach (1888) – of interpreting the lexical head as an extraposed internal head on the basis of excerpts like Petron. 134,8: *'o' inquit 'Oenothea, hunc adulescentem quem uides, malo astro natus est'*, where the presence of *hunc* seems to exclude the extraction since it would not be possible to have **quem hunc adulescentem uides* (Section 2.3.1).

123. Sometimes the presence of a subjunctive, which would be unusual in a relative clause (Section 1.4), is the only marker which distinguishes a circumnominal relative clause from an indirect interrogative clause, as happens, e.g., in Caes. *Gall.* 2,26,4: *et T. Labienus castris hostium potitus et ex loco superiore quae res in nostris castris gererentur conspicatus* X *legionem subsidio nostris misit*. However, since the generalization of the subjunctive as a marker of the indirect interrogative clause is rather recent (e.g. Ernout & Thomas 1953: 313), there are several cases where the disambiguation is not very clear (cf., e.g., Cic. *leg. agr.* 2,49: *patefacio uobis quas isti penitus abstrusas insidias se posuisse arbitrantur contra Cn. Pompei dignitatem*). Most probably, the overlap of circumnominal relative clauses and indirect interrogative clauses can be traced back to the fact that, even if indirect interrogative clauses are argumental, if they are *wh*-questions the interrogation does not concern the whole state of affairs, but may concern, for instance, a single participant. This creates ambiguity in the case of homophony of the interrogative or relative marker and if the verb in the matrix clause does not express an interrogation or a doubt.

inal from preposed relative clauses, there are cases where a circumnominal relative clause can be preceded by an element like *is* (124). These are extremely rare cases and are very interesting from a theoretical point of view (Section 5.1.2).[124]

(124) Caes. *Gall.* 6,40,6: *neque eam quam profuisse aliis uim celeritatemque uiderant, imitari potuerunt*
'and they could not imitate that vigor and speed which they had observed others to possess'

As for relativization strategies, by definition circumnominal relative clauses can be realized only through the Nonreduction Strategy. On the other hand, if we consider the degree of integration within the matrix clause – instead of taking into account the fact that circumnominal relative clauses contain their lexical head – we can compare the Nonreduction Strategy with cases of free relative clauses such as (53) or (125), where the Relative Pronoun Strategy is realized (Section 3.3.3).[125]

(125) Caes. *Gall.* 2,20,4: *per se quae uidebantur administrabant*
'they executed whatever appeared proper by themselves'

Circumnominal and free relative clauses share the same type of maximalizing semantics (Section 2.2.4). From the same perspective, circumnominal relative clauses can be regarded as concurrent with participles converted to nouns (35).

As for the accessibility hierarchy, we can also find cases where the relative pronoun and the internal lexical head are constituents of another clause subordinated to the relative clause (Section 3.2.2) (126).

(126) Caes. *Gall.* 6,30,1: *eorum indicio ad ipsum Ambiorigem contendit, quo in loco cum paucis equitibus esse dicebatur*
'through their information he advances toward Ambiorix himself, at the place in which he was said to be with a few cavalry'

124. In such cases *is* can also be interpreted as a determiner (n. 32).

125. The difference from true circumnominal relative clauses is due to the lack of a lexical head, even if this does not mean that the relative pronoun is semantically empty as it presents number and animacy features (Sections 2.2.3, 2.3).

As for the higher positions in the accessibility hierarchy, (127) provides an example of a circumnominal relative clause in the nominative case. The lack of an item such as *in eas* in the matrix clause seems probably due to recoverability of the syntactic link on the basis of the insertion by coordination of the circumnominal relative clause in an enumeration (*in Carnutes, Andes, Turonos*).[126] In other cases circumnominal relative clauses in the nominative are difficult to distinguish, not only from preposed relative clauses where a phoric element is lacking, but also from prenominal clauses (128). All these contexts of ambiguity are perhaps best interpreted as instances of reanalysis (Section 5.1.2).

(127) Caes. *Gall.* 2,35,3: *ipse in Carnutes, Andes, Turonos quaeque ciuitates propinquae his locis erant, ubi bellum gesserat, legionibus in hiberna deductis in Italiam profectus est*
'he himself, having led his legions into winter quarters among the Carnutes, the Andes, and the Turones, and those states which were close to those regions in which he had waged war, set out for Italy'

(128) Caes. *Gall.* 5,17,5: *ex hac fuga protinus quae undique conuenerant auxilia discesserunt*
'immediately after this retreat, the auxiliaries who had assembled from all sides, departed'

5. Evolution of the relative clause

The evolution of the Latin relative clause necessarily starts from the Proto-Indo-European situation.

There is a long controversy over the presence of relative clauses in Proto-Indo-European, which is linked to the question of the impossibility of reconstructing a single root for the relative pronoun (Section 1.3.3, n. 7).[127] However-

126. See Longrée (1995) for a study of these structures in Tacitus (e.g., *ann.* 2,41,2: *Iunias triumphauit de Cheruscis Chattisque et Angriuariis quaeque aliae nationes usque ad Albim colunt*).

127. In this regard see, e.g., Friedrich (1975: 31) and Baldi (2002: 90); Lehmann (1979: 4–5) discusses the hypothesis, first proposed by Sturtevant (1930) and variously devel-

ever, the presence of correlative structures in languages belonging to different branches and introduced by elements which can be traced back to both reconstructed roots is evidence of the great antiquity of this syntactic structure.[128] The case of Hittite, a language in which the development of relative clauses remains at an initial stage, is particularly interesting in this regard (129).

(129)

GUD-*puhugarin*	*ma*	*kuedani*	UD-*ti*
ox-substitute.ACC-	PTC	which.DAT	day-DAT/LOC
unueir	*nu-za*	DUTUŠI	*apedani*
decorated.3PL	PTC-PTC	my sungod	DEM-DAT/LOC
UD-*ti*	*warapta*		
day-DAT/LOC	bathed.3SG	(Justus 1976: 233)	

‘the “sungod” (= the king) bathed on the day on which they adorned the substitute ox’

In this example an internal-headed relative clause – that is, a relative clause realized through a Nonreduction Strategy (Section 3.3.1) – is followed by the repetition of the head in the matrix clause. The presence of the particle *nu* at the beginning of the latter shows that the relative clause is not integrated – that is, that the subordination linkage is quite loose, exactly as happens in Latin preposed relative clauses (Section 4.1).[129]

As for Vedic, Minard (1936) considers the structure where the clause with the relative pronoun precedes the one introduced by the correlative or the anaphoric pronoun to be the “normal diptych” (130), although it is not the only structure existing in this language.

oped by Hahn (1946, 1964), of the presence of both forms $*k^w o$-/$*k^w eh_2$-/$*k^w o$- and *yos/*yeh_2/*yod* as relative pronouns in Proto-Indo-European. In particular, according to Sturtevant, the form *yos/*yeh_2/*yod* originally introduced postposed relative clauses, the root $*k^w o$-/$*k^w eh_2$-/$*k^w o$- preposed ones, and later one of the two relative pronouns was generalized to all functions in the single languages. On the other hand, Lehmann prefers to see them as dialectal variants, as in Schmitt-Brandt (1973).

128. See Haudry (1973: 153–154), Lehmann (1984: 369).

129. On the correlatives in Hittite see Raman [Justus] (1973) and Justus (1976), who treats them in terms of topicalization structures.

(130) RV 1,91,9:

sóma	*yā́s*	*te*	*mayobhúva*	*ūtáyaḥ*	*sánti*
soma	which	of-you	beneficial	aids	they-are

dāśúṣe	*tā́bhir*	*no*	*'vitā́*	*bhava*
to-worshiper	with-those	to-us	helper	you-be

'soma, which of your aids are beneficial to the worshiper, with these be a helper to us' (W. P. Lehmann 1974: 62)

In this example the resumption in the matrix clause is formed by the anaphor alone. The Vedic relative pronoun can be traced back to the form **yos*/**yeh*$_2$/**yod*; the same is true for the most frequent Greek relative pronoun ὅς, which can also form correlative clauses. In such clauses other less frequent relative pronouns may also occur, which can be traced back to the root **k*^{w}*o*-, as in (131).[130]

(131) *Il.*, 3,71–72 (= 3,92–93):
ὁππότερος δέ κε νικήσῃ κρείσσων τε γένηται / κτήμαθ' ἑλὼν εὖ πάντα γυναῖκά τε οἴκαδ' ἀγέσθω·
'and whichsoever of us two shall win, and prove him the better man, let him duly take all the wealth and the woman and bear them to his home'

Occurrences of this kind, even if they have neither a lexical head nor an anaphoric resumption – at least not a phonetically realized one – are nevertheless ascribed to the correlative type.[131]

According to W. P. Lehmann (1974: 63), the presence of correlative clauses in Proto-Indo-European is linked to OV basic order. Furthermore, C. Lehmann (1979) appeals to the probable passage from an agglutinative to an inflected language; inflected languages realize relativization operations (Section 3.1) by morphological means and merge into a single form – the polyfunctional relative pronoun (Section 1.3.2) – several morphemes. In this framework the passage to an inflected typology would also mark the decline

130. Homeric Greek also employs as a relative pronoun the pronoun ὁ ἡ τό, which can be traced back to the form **so*/**seh*$_2$/**tod*.
131. See, e.g., Watkins (1998: 71). The most complete study of the Greek relative clause remains Monteil (1963). Verse *Il.* 3,71 = 92 also corresponds to *Od.* 18, 46.

of the Participle Strategy (Section 3.3.6), which is more consistent with the agglutinative type; traces of this are the many forms of participles which can be reconstructed for Proto-Indo-European but often no longer exist in attested languages. In the latter, in fact, participles mostly perform a converbial function (Section 1.5.1).[132]

It might be supposed that the origin of relative clauses from the correlative structure is linked to the fact that the pragmatic-textual function – topicalization[133] – and the syntactic conditions which are typical of preposed relative clauses – with the possible presence of an anaphor as the representative of the modified lexical head – are the least compatible with the use of the Participle Strategy.[134]

5.1. An evolutionary hypothesis

Discussing the evolution of Latin relative clauses amounts to formulating a hypothesis about the ways and reasons other types of relative clauses developed from the type of preposed relative clause which can be reasonably reconstructed for Proto-Indo-European (Section 5). Since all types of relative clauses are already attested in the early period (Section 5.2), this evolution

132. On the function of participles as subordinating strategies in Proto-Indo-European, see, e.g., Baldi (2002: 90–91) and Watkins (1998: 71).

133. More precisely we might think of a theme, at least in Dik's (1997: 389–395) terms. Lehmann (1984: 347, 370) speaks of *Exposition*, which he defines the same as Chafe (1976: 50–51) defines topic; that is, as "the frame within which the sentence holds", or, more exactly, the "spatial, temporal, or individual framework within which the main predication holds"; *Exposition* is the opposite of *Eventum*, which coincides with the main predication.

134. According to Watkins (1998: 71), however, a passage like *Il.* 3,138: τῷ δέ κε νικήσαντι φίλη κεκλήσῃ ἄκοιτις could be compared with the verse in (131). The occurrence τῷ δέ κε νικήσαντι would thus perform the same function as ὁππότερος δέ κε νικήσῃ; i.e., it would be a protasis, as can also be inferred from the presence of the modal particle κε. In this case it should be determined whether free relative clauses – such as ὁππότερος δέ κε νικήσῃ – should indeed be considered the same as preposed relative clauses realized through the Nonreduction Strategy, at least as far as the degree of integration into the matrix clause is concerned, especially where there is lack of anaphoric resumption (n. 98).

can be appreciated in the history of Latin only via changes in the frequency of one or another type. The development of Latin shows, in general terms, a reduction in the presence of preposed relative clauses in favor of an increase in postposed and postnominal types.

The main principle at work in the evolution of relative clauses is reanalysis, together with the expansion or grammaticalization of the relative pronoun in particular. The most important factor that triggers this change can probably be found in information structure; it determines syntactic changes which affect both the whole relative clause and its single constituents, especially the relative pronoun or the (pro)nominal head. These changes are produced together with changes in word order, which form a second evolutionary factor, working at a structural level.[135]

5.1.1. Genesis of the correlative clause

Since correlative clauses can be reconstructed for Proto-Indo-European, the *normal diptych* (Section 5) can plausibly be considered the original structure. In Latin it is a productive structure whose signifiers renewed themselves; we can in fact distinguish three schemas:[136] (1) the older correlation between the forms *k^wo- … *to- (*cum … tum*, *quam … tam*, *quantus … tantus*, *quot … tot*, *quotiens … totiens*); (2) Latin-specific correlation between *ubi … ibi*, *unde … inde*, *ut … ita*; (3) a more productive correlation between *qui … is*, *quod … id*, *quo … eo*, *quomodo … eodemmodo*, *quoad … usque eo*. In the latter two schemas the correlative is built on the root **i*-, which replaced the form **to*-.[137]

135. On the change in word order see Polo (2004), Bauer (1995: 160–162), and Harris and Campbell (1995: 230).
136. See Haudry (1973: 153–154); he takes Minard's hypothesis (1936) as a starting point to discuss the normal diptych in Latin.
137. From the three schemas it is clear that both elements which introduce the two correlated clauses may be formed by adjectives or complementizers/adverbs (i.e. frozen inflected forms or invariable forms), as well as pronouns. The first member of a correlation can also be formed by the indefinite relative pronouns *quicumque* or *quisquis* or by *si quis* as well (cf., e.g., Cato *agr.* 44,3: *quae arida erunt et si quid uentus interfregerit, ea omnia eximito*). On the other hand, besides *is* – a correlative pronoun which is very productive in the early period, e.g. in Cato, and still prototypical in the classical period – the second

Haudry (1973) deals with the subject of correlatives, arguing against the traditional idea that all forms of hypotaxis in Indo-European languages developed from parataxis. He (1973: 152) sees correlatives as an intermediate syntactic structure between parataxis and hypotaxis, from which several subordinate clauses – including other forms of relative clauses – formed.[138] Lehmann, too (1988: 183–189, 1989: 155–157; n. 74 above), considers the correlative diptych a form of subordination similar to parataxis; he also hypothesizes its very origin in the juxtaposition of two independent clauses, the first being a predication on a specific indefinite noun phrase which is anaphorically referred to in the second clause ((79): *Gestern habe ich einen Studenten geohrfeigt; er konnte seinen Stoff nicht hersagen*). Lehmann (1984: 368–373) explains the genetic process of the correlative clause beginning from a semantic-textual relationship which arises between the two paratactic clauses. This relationship pivots on the sharing of the same referent (*Student*) by two implicit attributions (Section 3.1.2) ('the student whom I slapped', 'who could not repeat his lesson'). In these conditions, one of the two implicit attributions can be grammaticalized.

From a functional perspective, if one of the two clauses is a theme for the other one it is dependent from a semantic-textual point of view; usually, the theme precedes the rheme, so that grammaticalization can give rise to output like (132).

(132) *Welchen Studenten ich gestern geohrfeigt habe, der konnte seinen Stoff nicht hersagen*
'Which student yesterday I slapped, he could not repeat his lesson'

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member of the correlation can be *hic* (which is frequent, e.g., in Lucretius), *ille*, or *idem*. Through the history of Latin there is a progressive diminution in the use of *is*, balanced by an increase in the use of *ille* (see Fruyt 2005: 25; *infra*).

138. Haudry (1973: 153) remarks in particular that the two parts of the sentence are grammatically independent of each other, exactly as happens in parataxis, to the point that sometimes the correlation is expressed through two parallel signifiers (*tel père, tel fils*); between the members there is, however, a link, which appears more clearly in Latin constructions like *qualis pater, talis filius*. The two types of diptych quoted above are different, however; *tel . . . tel* is in fact an undifferentiated diptych, while *qualis . . . talis* is a normal diptych: see Fruyt (2005: 19–20). On the limitations of the Parataxis Hypothesis, i.e., of the derivation of all subordinates from parataxis, see also Harris and Campbell (1995: 282–286).

This structure, in which the first implicit attribution is grammaticalized, is typical in verb-final languages, which are the only languages where a preposed relative clause can be the main type. Let us examine the stages of this grammaticalization process in greater detail than in Section 4.1.

First the theme creates a reference frame for the subsequent text, prototypically including the introduction of referents which can later be resumed anaphorically. Beginning with this model, a grammaticalization of the anaphoric relationship takes place. Therefore, grammaticalization starts with the formation of an anaphor. In cases where the specific indefinite referent introduced in the theme is not explicitly designed, it is shown by an indefinite pronoun – in this case *k^wi-* – which is referred to by the phoric element in the subsequent clause. The next step is the reinterpretation of the indefinite pronoun as a kind of (new) topic marker, which occurs even in the presence of full nouns. We have thus arrived at the correlative sentence, which is no longer simple parataxis, since in the first clause there is necessarily a pronoun bound to the anaphor in the second clause. However, we are still not too far from parataxis, as is shown by the cases of lexical head reduplication (Table 5 (b); Section 4.1), which are possible only in the presence of an almost free anaphoric relationship.[139]

The next step in this grammaticalization process takes place when the normal diptych, once it has become a pattern, becomes available even in cases where the lexical head in the first sentence must necessarily be definite and the accompanying pronoun can no longer be interpreted as an indefinite. In this way, the nucleus formation is complete. Lehmann (1979: 9) compares (133) and (134). While (133) lends itself to both an indefinite and a definite reading, (134) only admits a definite interpretation.

(133) *CIL* I^2, 698: *in area trans uiam paries qui est propter uiam, in eo pariete medio ostiei lumen aperito*
'in the area beyond the road there is a wall beside the road; in the middle of this wall make an opening for a lobby'; or: 'in the middle of the wall which is in the area beyond the road beside the road make an opening for a lobby'

139. Touratier (1988: 372) and Fruyt (2005: 22), however, regard correlatives as instances of subordination.

(134) Plaut. *Asin.* 621: *patronus qui uobis fuit futurus, perdidistis!*
'you have lost the one who would have been your patron'

The last step in the evolutionary process of relative clauses takes place when definiteness of the internal head is explicitly marked through a demonstrative pronoun (75). In this way, all three operations of relative clause formation – formation of an anaphoric relation, attribution, and nominalization (Section 3.1) – have been completed; a textual function has become a fully syntactic structure.

5.1.2. Development of other types of relative clauses

Similarly, the development of other types of relative clauses from the correlative can only be supposed, since all the types are already present in the early period (Section 5.2).

Haudry (1973: 154–157, 165–168) proposes a hypothesis for the two fundamental Latin developments, namely the formation of postposed and postnominal relative clauses (Sections 4.3, 4.4).

Based on Haudry (1973: 154–155) we can trace back the origins of the postposed relative clause to the "external modifications" of the diptych; that is, to the development of an *inverted diptych*, as individuated by Minard (1936) in Vedic prose. Its origin would have been due to stylistic needs and it would often have been employed in proverbial sayings.[140] Lehmann (1984: 372) states that the grammaticalization process (Section 5.1.1) must have been completed before the first clause in a normal diptych became reversible. This has two important consequences. First, the semantic-syntactic function of the first clause of the normal diptych, that is, its value of attribution and subordination, must have become primary, instead of the textual function.[141] Moreover, the pronoun must by then have become fully relative, since in the inverted diptych it is an anaphor which is not compatible with the

140. Haudry (1973: 156) illustrates the proverbial usage through the saying *tanti est*, *quanti fungus putidus*, where no relative clause is found. See also Fruyt (2005: 37) for the identification of Minard's (1936) inverted diptych with the Latin postposed relative clause.

141. See Fruyt (2005: 27), who regards the anteposition of the relative clause in the early period – e.g. in Plautus and Cato – as neutral with reference to information structure, while encoding a thematization in the classical period.

feature [+INDEFINITE]. Therefore, the relative clause is available to convey different informational meanings.

As for the postnominal relative clause, its origin in Haudry's (1973: 155–157) terms is due to "internal modifications" of the diptych, that is, to modifications in segmentation, which would doubtless be reflected in prosodic changes. The process would have developed from the normal diptych with a nominal head preceding the relative pronoun; that is, from cases like (135).

(135) Ter. *Ad. prolog.* 23–24: *senes qui primi uenient ii partem aperient, / in agendo partem ostendent*
'the old men who come first will disclose a part of it; a part they will make known in the representation'

Apart from the reasons which determine the relative position of *senes* and *qui*,[142] a reanalysis of syntactic boundaries – for instance, in this case from *senes qui* to *senes, qui* – would have two important consequences: the loss of relevance of the relationship between the pronoun and the phoric (*qui* ... *i*); and the passage from correlation to hypotaxis. In fact, with the new parsing the position of the pronoun marks the beginning of the relative clause while showing its subordination to the lexical head, which at this stage has become external. This implies that the pronoun, from being a marker of the nucleus, has become its representative in the relative clause; so that its case feature is now fully exploited to mark the relativized syntactic position and no longer to mark the agreement with the nucleus. On the other hand, the lexical head integrates into the matrix clause, until it replaces the phoric. It is noteworthy that the context for reanalysis exists only if the case of the lexical head and the case of the phoric coincide.[143]

142. See Section 2.3.1 for the interpretation of such cases as extrapositions of an internal head because of topicalization; an analysis of such occurrences as true *attractio inversa* instead is incompatible with Haudry's analysis, because this concept applies to external heads. According to Lehmann (1984: 388), the collocation at the margin of the nucleus, not only through anteposition, but also through postposition (139), would make explicit the formation of the nucleus which in itself can appear distant from its marker.

143. However, it should be admitted that examples with a probable reanalysis context are very few in the whole of early literature, so much so that Haudry (1973: 155) illustrates his hypothesis with an entirely fictitious example (*uir qui* ... *is* which would become *uir,*

Starting from Haudry's hypothesis, Lehmann (1984: 387) remarks that, typologically speaking, no case is attested where the development of a postnominal relative clause came from a preposed relative clause without the co-occurrence of a postposed relative clause – that is, before the preposed relative clause became reversible. The passage from postposed to postnominal relative clauses is exemplified by the Homeric relative clause introduced by ὅ, which was originally a demonstrative pronoun, and is due to the passage from an implicit predication/attribution to an explicit attribution when postposed relative clauses are restrictive (Lehmann, 1984: 373–374, 387).[144] In this way, the syntactic boundaries are reanalyzed and a complex nominal is constructed, so that in post-Homeric Greek the relative clause can be embedded in a postnominal position (136).

(136) Hdt. 2,106,1: τὰς δὲ στήλας, τὰς ἵστα κατὰ τὰς χώρας ὁ Αἰγύπτου βασιλεὺς Σέσωστρις, αἱ μὲν πλεῦνες οὐκέτι φαίνονται περιεοῦσαι
'as for the pillars that Sesostris, king of Egypt, set up in the countries, most of them are no longer to be seen'

We must thus assume that the formation of postposed relative clauses precedes the formation of postnominal ones, whose genesis can in any case be explained through the integration of an adjoined clause within the matrix clause.[145]

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qui … (is)). The hypothesis of a change in segmentation is already found in Kroll (1912: 15); *mutatis mutandis*, it can be found also in Bianchi (2000), in a generative perspective.

144. Compare in this respect the following passages: *Il.*, 18,80–82: ἀλλὰ τί μοι τῶν ἦδος ἐπεὶ φίλος ὤλεθ' ἑταῖρος / Πάτροκλος, τὸν ἐγὼ περὶ πάντων τῖον ἑταίρων / ἶσον ἐμῇ κεφαλῇ; τὸν ἀπώλεσα vs. *Il.*, 1,318–319: οὐδ' Ἀγαμέμνων / λῆγ' ἔριδος τὴν πρῶτον ἐπηπείλησ' Ἀχιλῆϊ. In the first passage the first τὸν at least is doubtless an appositive relative pronoun, while the τὴν in the second passage must certainly be regarded as restrictive.

145. Fruyt (2005: 38) remarks that the adjacency between lexical head and relative pronoun develops especially in the classical period and that over the history of Latin, postnominal relative clauses pass from a position at the beginning of the matrix clause in Early Latin (e.g., Cato *agr.* 89,2: *gallinas teneras, quae primum parient, concludat*) to a clause-final position in Late Latin for reasons linked to the prevalence of SVO basic order. According to Antinucci, Duranti, and Gebert (1979, § 4), on the contrary, it is the postnominal position of the relative clause that causes the passage to a SVO language. Of course, in the world's languages there is no necessity for an integrated clause to develop from an ad-

The same mechanism can be called on to explain the origin of circumnominal and prenominal relative clauses (in this order), starting from the preposed relative clause (Lehmann 1984: 386–387). When a preposed relative clause occurs without an anaphor, in fact, it can be reanalyzed as a circumnominal relative clause – that is, as a direct constituent of the matrix clause (Section 4.5) (137).[146]

(137) Cato *agr.* 40,2: *quem ramum insiturus eris, praecidito*
'cut the end of the branch you are going to graft'

If the lexical head is postposed (123), it can be reinterpreted through reanalysis as a constituent of the matrix clause, provided that there is coincidence of the relativized position and the syntactic function of the whole relative clause within the matrix clause (138).

(138) Ter. *Eun.* 449–450: *metuit semper quem ipsa nunc capit / fructum nequando iratu' tu alio conferas*
'she's always been afraid that you might one day in anger transfer elsewhere the income that she now gets from you'

A similar case has been quoted in (109) (Section 4.2), which does, however, pose a theoretical problem. The presence of *ex eo* before the relative clause might in fact lead one to think that circumnominal and prenominal relative clauses developed after the formation of the inverted diptych, exactly as has been said for postnominal relative clauses, and the case of circumnominal relative clauses like (124) seems to confirm this claim. However, more archaic excerpts such as (139) show a preposed structure which is accompanied by

joined one. The adjoined is the main realization of the relative clause with a pronominal nucleus.

146. A particularly interesting excerpt in this respect is Cato *agr*. 35,2: *hordeum, qui locus nouus erit, aut qui restibilis fieri poterit, serito. Trimestre[m], quo in loco sementim maturam facere non potueris et qui locus restibilis crassitudine fieri poterit, seri oportet*. In this case we can note first of all the function of theme of preposed relative clauses which are not resumed in the matrix clause (n. 133); if, however, *quo in loco sementim maturam facere non potueris* occurred alone, instead of in coordination with *qui locus restibilis crassitudine fieri poterit*, it would lend itself perfectly to reanalysis as a circumnominal relative clause.

a demonstrative and could be reanalyzed as circumnominal or prenominal, if anaphoric resumption were lacking (Section 2.3.1).

(139) Plaut. *Aul.* 34–35: *et hic qui poscet eam sibi uxorem senex, / is adulescentis illius est auonculus, / qui illam stuprauit noctu*
'and the old man who is to ask for her hand is the uncle of the young man who violated her by night'

5.1.3. Development of free relative clauses and relative clauses with a pronominal head

The genesis of free relative clauses (Section 2.2.2) is linked to the formation of the normal diptych. According to Lehmann's hypothesis (1984: 368–373), the indefinite pronoun *$*k^w i$-* is introduced in the first clause when a specific indefinite referent is not explicitly designated and is referred to by a phoric in the subsequent clause. When this anaphoric link is grammaticalized, the pronoun is reanalyzed as a nucleus-forming marker and becomes compulsory even in the presence of a referential expression (Section 5.1.1). Therefore, a substantial structural correspondence obtains between internal-headed preposed relative clauses and free relative clauses preposed to the matrix clause ((51); Section 4.1), when the phoric element is missing.[147] In turn, the inverted diptych can also give rise to free relative clauses (46).

On the other hand, the development of pronominal relative clauses likewise involves the lack of a lexical head, but also the realization of the phoric element, either as an anaphor ((140), (150)) – in the case of a normal diptych – or as a cataphor in the case of an inverted diptych (150) or in the case of immediate antecedence with respect to the relative pronoun (141).

147. Indeed, besides structures of the type illustrated in (129), the other normal type of relative clause in Hittite is formed by free relative clauses preposed to the matrix clause, as in the following example:

kuiš-an	*āppa*	*uwatezzi*	*nu-šše*	*6*	GIN
which.NOM-him	back	brings-3SG	PTC-3MSG	6	shekel(s)

KUBABBAR	*pāi*
silver	gives-3SG

'they give 6 shekels of silver to the one who brings him back' (Justus 1976: 234)

(140) Cato *agr.* 50,3: *ea loca primum arato, quae siccissima erunt; et quae crassissima et aquosissima erunt, ea postremum arato, dum ne prius obdurescant*
'working first the driest spots and last the heaviest and wettest, provided they do not get hard in the meantime'

(141) Cato *agr.* 110,1: *sed ea, quae demissurus eris, sumito paulo acerbiora*
'but the fruit to be preserved should be picked a little before it is ripe'

From the early period on, cataphors are often adjacent to the relative pronoun, even in the inverted diptych (142).

(142) Plaut. *Amph.* 752: *audiuistin tu hodie me illi dicere ea quae illa autumat?*
'did you ever hear me utter a syllable of what she says?'

This model, which is increasingly widespread in Late Latin (Section 5.4), creates an independent pattern, which may form the resumption of a clause (*id quod*) or even of a lexical head (n. 36).[148]

5.1.4. Genesis of different relativization strategies

If not the Resumptive Pronoun Strategy itself, at least the co-occurrence of the relative pronoun with a resumptive pronoun (Section 3.3.2) can be traced back to the normal diptych with an anaphor (Hofmann & Szantyr 1965: 556). In fact, once the internal modification of the normal diptych takes place, which leads to the formation of postnominal relative clauses in Haudry's terms (1973: 155–157; Section 5.1.2), (*senes qui ..., i* > *senes, qui ... i*), the relationship between the relative pronoun and the anaphor (*qui ... i*) loses its importance or at least changes its nature. It may be supposed that, when syntactic boundaries are reanalyzed, the phoric element, as a secondary development, can be considered part of the relative clause if it does not disappear. This leaves to the lexical head now integrated within the matrix clause

148. On the pattern *is qui* see especially Lavency (1996), with particular reference to *de bello Gallico*.

the task of marking the syntactic position of the constituent modified by the relative clause. An example of a reanalysis context might be (143).

(143) Ter. *Eun*. 926–929: *nam ut mittam quod ei amorem difficillimum et / carissimum, a meretrice auara uirginem / quam amabat eam confeci sine molestia / sine sumptu et sine dispendio*
'not to mention that I've secured for him without trouble and without cost or outlay a very difficult and very expensive love affair, since the girl he loved belonged to a greedy courtesan'

On the other hand, the true Resumptive Strategy is a much later development (Section 5.4), linked to the slow passage of the relative pronoun toward becoming a complementizer. This passage implies the loss of the attributive function of the relative pronoun – that is, its ability to unequivocally identify the head noun – and later also of its empty-place formation function – that is, the ability to mark the relativized syntactic position. In fact, for phonological and morphological reasons which had been at work since the classical period, the agreement of the relative pronoun with the pivot in the matrix clause disappears, entirely in number and only partially in gender, since a feature [+HUMAN] remains, a situation which clearly points toward the formation of pronouns like It. *chi* or Sp. *quien*. In the meantime, a progressive loss of the case feature takes place, even if at a slower pace than the parallel process in the noun. In fact, relative pronouns retain an opposition Nom./Acc./Obl. (*qui, que(m), cui*), but the unmarked form *que(m)* has a hyperextension, and the form *que*, probably pronounced [ke], becomes widespread, also because of the overlap of *que* with *quae*, especially when *quae* is a neuter plural.[149] This bundle of processes gives rise to forms of relative clauses which foreshadow very closely the Resumptive Strategy (Table 5 (c.2)) that will be firmly established in the popular languages a little later.

Several factors play a role in the diffusion of the Resumptive Strategy: first, the existence of the pleonastic resumption (Section 5.4) and the possibility of resuming a relative pronoun through a different form of anaphor, for

149. Especially in Merovingian Gaul. On the different stages in the change of the relative pronoun see, e.g., Norberg (1944: 57–59), Väänänen (1981: 125); see also Lehmann (1984: 389–393).

instance in coordination ((83); n. 59); another factor is doubtless the development of a complementizer *que* that replaces *quod*.[150]

In the absence of a resumptive, the reduction of the inflection system points forward to the Gap Strategy (Table 5 (e); Section 3.3.4).

5.2. Early Latin

The types of relative clauses whose formation has been hypothesized on the basis of the normal diptych (Section 5.1.2) are all already present in the early period. Some facts, however, show that over the history of Latin an evolution takes place, such that the external-headed postnominal types definitely prevail over the internal-headed or prenominal types. This trend reduced preposed relative clauses, which virtually disappeared in the late period (Section 5.4).

Conversely, in Early Latin preposed relative clauses (Section 4.1) are well represented in all their variants, in both epigraphic and literary texts, in verse and prose. The normal diptych may be realized with (99) or without (100) an anaphor, with head reduplication (Table 5 (b)) and even with more than one preposed relative clause and *variatio* in the resumption (144).

(144) *CIL* I^2 585: *quei ager in Africa est, … quae uiae in eo agro antequam Carthago capta est fuerunt: eae omnes publicae sunto*
'which field is in Africa, which roads were in this field before the conquest of Carthage, let all those be public'

Even the cases that ancient grammarians already regarded as anteposition of the internal head, that is, the phenomenon traditionally called *attractio inversa* (Section 2.3.1), occur quite frequently. It is worth noting the fact that, while *attractio inversa* is relatively frequent, *attractio relativi* (Section 2.3.2) is substantially missing in Early Latin. Apart from various potential analyses, what doubtless distinguishes the two phenomena is the direction of case agreement between the (pro)nominal head and the relative pronoun; in *attractio inversa* the head has the same case as the relative pronoun, exactly as

150. This is the last stage in the process of diffusion of finite subordination through the complementizer *quod* whose previous stages are traced by Cuzzolin (1994).

happens in internal-headed relative clauses. In *attractio relativi* it is the relative pronoun which is in the case of its external, preceding, head, almost to stress the dependency of the former on the latter.

The fact that relative clauses in Early Latin are still in a not very advanced stage of evolution is also shown by the frequency of circumnominal relative clauses (Section 4.5) (145).

(145) Ter. *Hec*. 607: *quem cum istoc sermonem habueris procul hinc stans accepi, uxor*
'I've been standing over here, my dear, and I overheard your conversation from a distance'

The final position of the nucleus is fairly common in comic authors ((123), (138)); (146) shows a case inserted within a normal diptych.

(146) Plaut. *Curc*. 432–433: *tecum oro et quaeso, qui has tabellas adferet / tibi, ut ei detur quam istic emi uirginem*
'I beg you to be so kind as to see that the bearer of this letter is given the girl I purchased'

There are also cases in which the head follows the relative pronoun while belonging to the matrix clause – that is, cases of prenominal relative clauses (Section 4.2) (147).

(147) Plaut. *Cist*. 123–124: *nam ego illanc olim, quae hinc flens abiit, paruolam / puellam proiectam ex angiportu sustuli*
'now that girl that just went away crying, a long time ago when she was only a little tot, I picked her up in an alley where she'd been left'

Of course, this does not mean that Early Latin texts never show cases of external head preceding the relative clause, whether the latter follows the matrix clause – postposed relative clauses ((148); Section 4.3) – or is embedded within it – postnominal relative clauses ((149); Section 4.4).[151]

151. Statistics given by different scholars differ in this regard, perhaps because of the divergent criteria chosen. Serbat (1988: 37), in his analysis of a corpus including all the comedies by Terence and *Aulularia* by Plautus, calculates that 33 % of the relative clauses follow a lexical head (*Nom Antéc. Qu-vb*). Lehmann (1979: 10), who makes reference to

(148) Plaut. *Asin.* 633–634: *argenti uiginti minae me ad mortem appulerunt, / quas hodie adulescens Diabolus ipsi daturus dixit*
'I'm driven to my death by 20 minae young Diabolus promised to pay her today'

(149) Plaut. *Bacch.* 620–621: *omnibus probris, quae improbis uiris / digna sunt, dignior nullus est homo*
'not a man on earth is more worthy of all the scandal of an infamous scoundrel'

In Early Latin, free and pronominal relative clauses are quite frequent (Section 2.2); (150) shows one instance in preposed and one in postposed position with reference to the matrix clause.[152]

(150) Plaut. *Capt.* 566: *quem uides, eum ignoras: illum nominas, quem non uides*
'the man you see you don't know: you name the man you don't see.'

Other cases of chiasmus underline equivalences, such as among free and pronominal relative clauses (49), or between pronominal and preposed relative clauses (140). In Early Latin free relative clauses, some traces of the relative pronoun formation can also be found in the occasional exchange between forms of *qui* and *quis* ((1)–(2)).

As for relativization strategies (Section 3.3), some occurrences of relative pronouns resumed by another pleonastic pronoun are already attested in the

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Vonlaufen (1974), claims that already in Plautus one quarter of all relative clauses are preposed, while more than two thirds are postposed. Fruyt (2005: 39–40) comments on data gathered by Bertelsmann (1885) in Plautus, Terence, and Cicero, *Epistulae ad Atticum*, which she compares with Cato; statistics confirm a clear prevalence – again about two thirds of the total – of postposed relative clauses (e.g., *is homo punitur, qui peccauit*) already in the early period. However, both clauses with a lexical head, even with reduplication (*(is) homo punitur, qui homo peccauit*), and pronominal/free relative clauses (*(is) punitur, qui peccauit*) are included in these figures.

152. According to Lehmann (1979: 9 n. 25), in Plautus's texts clauses without a lexical head are three quarters of relative clauses, which would confirm the original character of relative clauses already noted by Delbrück (1900: 400–402); according to Serbat (1988: 37), in comic authors the ratio of free relative clauses would be about 55–56 %.

early period, in addition to Nonreduction and Relative Pronoun strategies; (151) is a unanimously accepted case.[153]

(151) Plaut. *Trin*. 1022–1023: *inter eosne homines condalium te redipisci postulas? / Quorum eorum unus surrupuit currenti cursori solum*
'and you expect to resecure your slave's ring from such a gang? Why, any one of them can steal the sole off a runner's shoe while he's running'

5.3. Classical and post-Classical Latin

In the classical period, postnominal and postposed relative clauses certainly prevail.[154]

Since Greenberg (1963), typological studies have linked the types of relative clauses that precede their head to the OV basic order, and the types that follow it to the VO basic order; therefore, the shift of Latin relative clauses to the type prevailing in Romance languages has also been interpreted as linked to a change in basic order.[155] Duncan (2004: 125–128) regards this explanation as insufficient and simplistic, as it appears that processing factors played a central role in this shift. Kuno (1974), for instance, shows that center-embedded structures create processing difficulties. For this reason SOV languages prefer preposed, or at least prenominal, relative clauses and tend to avoid postnominal relative clauses. On the contrary, SVO languages prefer postnominal to prenominal relative clauses, since in these languages the whole expansion of the clause, except for subject, is to the right of the verb; in this case, prenominal relative clauses would be center-embedded for a much greater number of constituents than postnominal relative clauses,

153. Of course, the example is not entirely unproblematic since it is very close to an instance of relative connection; the relative clause can, however, be regarded as a postposed appositive (Section 4.3).
154. Lehmann (1979: 14–15) regards as "klassisch", namely normative in the classical period, the type surviving in the Romance stage – that is, relative clauses with an external, and as a rule immediately preceding, lexical head.
155. See among others Downing (1978: 400) and de Vries (2002) for the typological point of view; Harris and Campbell (1995) and Lighfoot (1999) for the diachronic interpretation.

which would be center-embedded for the subject only. The need to avoid center-embedded structures may also explain the tendency to prefer adjoined to embedded relative clauses, or at least relative clauses at the margin of the main clause to relative clauses inside it (n. 71), especially in the two extreme stages of the evolution process.

The preponderance of postnominal and postposed relative clauses in Classical Latin does not exclude the relatively frequent occurrence of preposed ((51), (94), (99), (101), (105), (106)), prenominal ((98), (107)), and circumnominal ((95), (124), (126), (127)) relative clauses.[156] Examples like ((58), (61), (63), (104)) also show the vitality of free ad pronominal relative clauses.

Notwithstanding these data, the growing importance of the external lexical head is shown by the presence, together with *attractio inversa* (Section 2.3.1) – which is, however, much less widespread in the classical period than in Early Latin[157] – of *attractio relativi* (Section 2.3.2) (152).

(152) Caes. *Gall.* 5,2,2: *circiter sescentas eius generis, cuius supra demonstrauimus, naues et longas duodetriginta inuenit instructas*
'he finds that about six hundred ships of that kind which we have described above and twenty-eight ships of war, had been built'

Consistently, among relativization strategies the reduplication of the head (Section 2.1) is only frequent until Cicero, notably in Caesar; rare in Livy, it

156. To a certain extent, Fruyt (2005: 25–27, 35–36) links the decreasing use of the normal diptych – e.g., it does not occur at all in Petronius – to the loss of productivity of the pronoun *is*, already widely replaced in the classical period by *hic* (e.g. in Lucretius) and *ille*, to which *idem* can be added (Lavency 1998: 98). See also Watkins (1976: 311–315) on the frequent presence only in archaizing writers of the subtypes of relative clauses closer to the preposed ones in the classical and post-classical periods; cf., e.g., Gellius (5,11,14: *Ennius autem in ista, quam dixit, tragoedia eas fere feminas ait incolumi pudicitia esse, quae stata forma forent*) who has a prenominal, as well as a postposed with a relative pronoun quite far from its lexical head.

157. *Attractio inversa* is virtually absent in the prose of the classical period (for an example see Varro *ling.* 8,41). Occurrences are also very rare in poetry: in Vergil, for example, a single instance of this phenomenon can be found (n. 61), which Diomedes (1,454,8–12 K) and Donatus (4,394,2–4 K) quote under the heading *de soloecismo*; the same rarity can be found in verses of Tibullus (3,2,17–18) and Seneca (*Herc. O.* 410–416). On the diffusion of *attractio inversa* in the classical period see, e.g., Touratier (1980: 204–205).

becomes isolated later, except for archaizing writers and juridical texts.[158] The Nonreduction Strategy could already be employed to realize an apposition through an internal head with *variatio* of the signifier (153). From Livy on, however, we begin to find the usage which will prevail in Romance languages, namely the appositive as an external head ((154); n. 120).

(153) Liv. 4,44,12: *eodem anno a Campanis Cumae, quam Graeci tum urbem tenebant, capiuntur*
'in the same year, Cumae, at that time held by the Greeks, was captured by the Campanians'

(154) Liv. 23,7,4: *ea ne fierent neu legatio mitteretur ad Poenum, summa ope Decius Magius, uir cui ad summam auctoritatem nihil praeter sanam ciuium mentem defuit, restiterat*
'Decius Magius, a man who, if his fellow citizens had been rational, would have gained very great authority with them, did his best to prevent these things and to stop the envoys from going to Hannibal'

Finally, the resumption of the relative pronoun through another pronoun is attested in the classical and post-classical periods by isolated occurrences, which are often dubious from a textual point of view. A sure case of this is (155).[159]

(155) Apul. *met*. 9,16,1: *de isto quidem, mi erilis, tecum ipsa uideris, quem sine meo consilio pigrum et formidulosum familiarem istum sortita es*
'you must decide yourself, my mistress, what is to be done with this feeble dreadful lover you acquired without my advice'

158. See, among others, Kühner & Stegmann (1914, 2: 283).
159. Other interesting occurrences can be found at least in Livy (8,37,8, a passage normally emended by editors) and Varro (*rust*. 1,12,3, a passage with a pleonastic resumption usually expunged by editors); for a discussion of these examples see Touratier (1980: 504–508).

5.4. Late Latin

In Late Latin there are some facts that announce the typology of relative clauses which will later prevail in vulgar varieties and subsequently in Romance languages.

The first remarkable fact is the strengthening of the types of external-headed relative clauses as opposed to internal-headed types. Normal diptychs (Section 4.1) can hardly be found any more either in texts close to the spoken language, like the *Itinerarium Egeriae*, or in texts with very different literary ambitions, like *de civitate Dei*.[160] Postnominal and postposed relative clauses clearly dominate, with an increasingly marked tendency to adjacency of the relative pronoun to its (pro)nominal head.[161]

The affirmation of external-headed over internal-headed relative clauses is confirmed by the frequent cases of *attractio relativi* (Section 2.3.2), e.g. in Biblical texts (156), while cases of *attractio inversa* become rarer (Section 2.1.1).[162]

(156) *Luc.* 2,20: … *laudantes Deum in omnibus quibus audierunt et uiderunt*
'… praising God for all the things that they had heard and seen'

The fact that relative clauses are increasingly more often adjacent to their external head is linked to the transformations at work in the relative pronoun, especially the loss of number and gender features, which blocks the attri-

160. However, cf. Greg. Tur. *Franc.* 4,51: *sic enim Dominus per Salomonem dixit: Foueam quae fratri tuo parabis, in ea conrues*, where there is a structure which is typical of Early Latin, even if, of course, with a blurring of morphological distinctions in the relative pronoun and perhaps with a different information structure value.

161. See in this regard Fruyt (2003) and, more generally, Fruyt (2005), on the triumph of structures which may be traced back to the inverted diptych over the normal diptych. In the *Itinerarium Egeriae* the frequency of instances with the phoric *ille* immediately before the relative clause and preceded by the lexical head is noteworthy: see, e.g., 37,1: … *orare ad columnam illam ad quem flagellatus est Dominus*.

162. For an example of *attractio inuersa* in Late Latin cf. e.g. *Itin. Eucher.* 13,4 (*in summitatem ipsius fabricam quam uides ecclesia est*). As far as occurrences of *attractio relativi* in the Bible are concerned, the example from Luke (156) is drawn from the *Vetus Latina*; in contrast, the *Vulgata* has *laudantes Deum in omnibus quae audierant et uiderant*.

bution function of the pronoun, namely, the identification of the head noun (Section 5.1.4).

This very process of simplification of the relative pronoun inflection can be listed among the factors at the basis of the development of the Gap Strategy and the Resumptive Strategy, which can truly be seen only from High Middle Ages Latin. As for the earlier period, we can only say that the growing process of defunctionalization of relative pronouns quite probably contributes to the greater diffusion of their pleonastic resumption (Section 3.3.2; see Lehmann 1984: 392). In fact, compared to the rare, often dubious, examples in Early and Classical Latin, in Late Latin the occurrences of pleonastic resumptive pronouns are particularly frequent. When dated, the epigraphic evidence goes back to the third and fourth centuries CE, such as the epitaph (157) for a *uirgo uestalis*, which can be dated around the middle of the third century.

(157) *CIL* VI^1 2135,10: *Terentiae Rufillae V. V. cuius multi temporis bonitatem et humanitatem eius circa se in breui senserunt*
'to Terentia Rufilla *virgo vestalis*, whose goodness and humanity many felt around them for a short time'

Moreover, the use of pleonastic pronouns can be found in technical texts in Vulgar Latin, such as *Mulomedicina Chironis* (158), but also in historiographic texts, such as the collection of biographies known as *Historia Augusta* and Ammianus Marcellinus's *Rerum gestarum libri*.[163]

163. On *Historia Augusta*, see, e.g., *Hist. Aug. Comm.* 13,5–6: *uicti sunt sub eo tamen, cum ille sic uiueret, per legatos Mauri, uicti Daci, Pannoniae quoque compositae ⟨et⟩ Britannia, in Germania et Dacia imperium eius recusantibus prouincialibus; quae omnia ista per duces sedata sunt* and Vopisc. *Car.* 14,1; on Ammianus Marcellinus see 26,10,8: *absoluto Euphrasio Phronemius Cherronesum deportatur, inclementius in eodem punitus negotio ea re, quod diuo Iuliano fuit acceptus, cuius memorandis uirtutibus eius ambo fratres principes obtrectabat nec similes eius nec suppares* and 28,6,28. In relation to the text of Chiron it is worth noting that Vegetius – who revises a part, but with some "velléités littéraires", as Väänänen (1967: 243) puts it – suppresses the pronominal resumption: *ex qua ratione multa iumenta caudam frequenter parietibus fricant propter morsus uermium. Quos purgare de longanone studiose debebis …*

(158) Chiron 237: *ex qua ratione multa iumenta non sine dolore caudam assidue parieti infricant propter morsos eorum uermium. Quos expurgare de longanone eos debebis …*
'for which reason many mares scrape frenziedly their tail on the wall not without pain, because of the bites of those worms. In order to purge which from the tail you should … '

Within the Christian literature, the pleonastic resumption of the pronoun is already present in Tertullian, Ciprian, Arnobius, and Lattantius, notably in Biblical quotations.[164] The phenomenon is even more noticeable in translations of the Bible, especially other than the *Vulgata* ((159) vs. (160)). It is also seen, however, in *Psalms* in the *Vulgata*.

(159) *Itala gen.* 24,42: *si tu prosperas uiam meam quam ego nunc ingredior in eam*
'if you make the journey which I am taking prosper'

(160) *Vulg. gen.* 24,42: *si direxisti uiam meam, in qua nunc ambulo*
'if you have given me directions for the journey which I am taking'

As seen in (159), *Vetus Latina* often presents instances where the resumptive pronoun is in a different construction from the construction of the relative pronoun, showing some fidelity to the Greek model.[165]

Sometimes, apart from the resumption by a pleonastic pronoun, whole pleonastic phrases can be found (161).[166]

164. See, e.g., Tert., *adv. Marc.*, 3,19,2: *proinde et Esaias: quoniam, inquit, puer natus est nobis – quid noui, si non de filio dei dicit? – et datus est nobis cuius imperium factum est super humerum ipsius*.

165. The Septuagint Bible in fact states εἰ σὺ εὐοδοῖς τὴν ὁδόν μου, ἣν νῦν ἐγὼ πορεύομαι ἐπ'ἀυτήν, since the verb πορεύομαι can be construed, like *ingredior*, both transitively and intransitively. Touratier (1980: 497–504) claims that in Greek this is not a Semitism, but rather a construction of the *koiné* which fits the Resumptive Strategy of Hebrew well. On the influence of the Greek original, especially on the frequency of the construction, see Kühner & Stegmann (1914, 2: 288).

166. This construction is also present in *Mulomedicina Chironis* and *Historia Augusta*; an occurrence in the classical period can be found in Varro, in a passage emended by editors (*rust.* 1,12,3: *at Scrofa: Vitandum, inquit, ne in eas partes spectet uilla, e quibus uentus grauior [ex iis partibus] adflare soleat*). Touratier (1980: 509–511) regards this kind of repetition as a *mise en relief* through extraposition.

(161) *Itin. Eucher.* 12,1: *peruenimus ergo ad summitatem montis illius, ubi est nunc ecclesia non grandis in ipsa summitate montis Nabau*
'we arrived, then, at the summit of the mountain, where there is now a church of no great size, on the very top of mount Nabau'

Augustine feels the pleonastic relative clauses as a barbarism:

(162) Aug. *doctr. christ.* 2,13: *quid enim obest intellectori quod ita scriptum est 'Quae terra in qua isti insidunt super eam si bona est an nequam' et 'Quae sunt ciuitates in quibus ipsi inhabitant in ipsis'? Quam locutionem magis alienae linguae arbitror quam sensum aliquem altiorem*
'for how does it prevent our understanding it to have the following passage thus expressed: *Quae terra in qua isti insidunt super eam si bona est an nequam*; and *Quae sunt ciuitates in quibus ipsi inhabitant in ipsis*? And I am more disposed to think that this is simply the idiom of another language than that any deeper meaning is intended'

Touratier (1980: 482–514) does not consider all these data to be mere instances of "christianisme syntaxique";[167] he considers the pleonastic relative clause a construction which is typical of the popular language, whose frequency of attestation varies within the history of Latin.[168] It is present in early literature, it appears sporadically in the classical period, it becomes widespread in late inscriptions and most of all in technical texts without literary pretensions – or in historiographical texts with a biographical character or written by authors whose mother tongue is Greek – and especially in Christian Latin, owing to the popular origins of the first communities and under the influence of the Greek model of the Septuagint, which influenced early translations. Only when Christian literature becomes more refined and contact with pagan literature prevails over the Biblical model does Jerome try to

167. See, e.g., Lavency (1998: 111), who regards the pleonastic resumption of the relative pronoun as a "notamment chrétien" phenomenon.
168. In this regard see, among others, Hofmann & Szantyr (1965: 556), who speak of a secondary development within the vulgar language, which tends to favor reinforcing structures.

avoid pleonastic relative clauses, which he retains only in *Psalms*, due to their character of constant recitation which hinders the revision of the text.

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Comparative and superlative

The expression of comparison – in this chapter the label includes both comparatives and superlatives, unless explicitly specified – is one of the most stable in the history of Latin syntax, although the whole scenario is more complex than is ususally assumed (see Fontana Elboj 2002): it was basically conveyed by means of the same morphological devices and through the same syntactic patterns for all the centuries from the first documents of written Latin until the beginning of the Romance languages, in which the patterns used to express comparison change significantly. This fact renders it even more interesting and difficult to account for the current situation of the Romance languages, where superlatives and especially comparatives are expressed with new tools, whose predecessors frequently are not even attested in the lowest varieties of Latin.

However, the fact that the expression of comparison was restricted to a relatively few patterns and was stable over time conceals another indisputable fact: beside the “canonical” constructions, many other patterns are attested, sometimes only occasionally or for short periods, or exclusively in some texts; these are less integrated into the grammar, for which the comparative or superlative functions can be taken for granted. Therefore, the history of comparison in Latin is rather the history of how the canonical constructions survived until they were ousted and replaced by new formations, which remain current in Romance. Carefully following the fate of these parallel comparative patterns can show how and from where the Romance system of comparison, broadly speaking, developed.

The present chapter is divided into three parts: (1) a description of gradation on cognitive and functional bases, to familiarize the reader with the concepts and terminology of comparison employed here; (2) a typological description of the comparatives and superlatives of the world’s languages, and the position occupied by Latin according to the parameters chosen; (3) the origins and the historical developments of the patterns by which comparatives and superlatives were expressed in the history of Latin.

1. Basic concepts

1.1. The structure of the gradation patterns

Generally speaking, *gradation* is the label for the general cognitive process by which persons, things, or entities are compared. Comparison itself is a multifunctional word, whose meaning is covered, in other languages, by more than one term: in Italian, for example, *comparazione*, *confronto*, *paragone*, and *analogia* each points to a different perspective.

The cognitive and functional process involved is much more complicated than its linguistic expressions might suggest: "The domain of comparison in general, and the term 'comparative construction' in particular, refer to a number of different conceptual and linguistic forms" (Heine 1997: 109). This quotation makes it explicit that among the world's languages there is a remarkable variety of constructions, mainly but not exclusively represented by syntactic patterns, whose main function is to express comparison.

However, it must be pointed out that a more refined classification of the various notions of comparative has been worked out and can be used to analyze the data: needless to say, it includes more labels than simply the two that are usually employed, "comparative" and "superlative". For clarity, see Table 1.

Table 1 shows the various, but related, notions of comparison. Of course, whereas the notions mentioned in Table 1 are easily identifiable, nevertheless each of them does not necessarily have a specific linguistic expression. On the contrary, among the world's languages the number of linguistic patterns

Table 1. Types of comparative notions (Heine 1997: 109)

	Notion	Example
a.	Positive	*David is smart*
b.	Equative	*David is as smart as Bob*
c.	Superior Comparative	*Davis is smarter than Bob*
d.	Inferior Comparative	*David is less smart than Bob*
e.	Superlative	*David is the smartest*
f.	Elative	*David is very smart*
g.	Excessive	*David is too smart*

employed for these notions is usually smaller than the number of notions, taking into account that not all languages belong to the same morphological type or possess the same number of speech classes. For instance, the definite article, which is crucial to expression of the superlative in English or Italian, does not exist in the vast majority of the world's languages, and in fact the superlative and the elative almost always merge, or better, are expressed by the same comparative pattern, if a language has no definite article. The predictable consequence of all this is that a linguistic pattern is normally used for more than one comparative notion.

At least five remarks are relevant to Table 1.

- First, terminology sometimes exhibits slight variation: for instance, what in Table 1 is labeled "elative" is more frequently known as "absolute superlative" in the classical tradition, and what is labeled just "superlative" is traditionally called "relative superlative". For the superlative, this chapter refers to these notions with the traditional labels "relative superlative" and "absolute superlative" instead of "superlative" and "elative" because the latter seem to refer to different phenomena and therefore seem to miss the fact that in many languages, including Latin, the two notions are closely related and express what they have in common through the same form.
- Second, it is evident from Table 1 that, in order to identify the patterns associated with the various comparative notions, syntactic as well as morphological criteria are applied, when necessary, because morphology alone is insufficient. Such is the case, for instance, with the "equative" in languages with no dedicated morpheme for that function. The function labeled "absolute" (i.e., "elative") can be identified by either morphology or syntax, unless the language belongs to the isolating type, whereas the function labeled "relative" (i.e. "superlative") must necessarily be identified only by syntax.
- Third, as for syntax, the examples provided in Table 1 could give the impression that there is only one stable and invariable pattern for expressing that particular notion. In fact, in many languages there can frequently be two patterns, occasionally even more, to express the same notion with some functional differences. In Latin, as is illustrated in Section 1.3, the relative comparative was expressed by four patterns and their variants.
- Fourth, it is useful to draw a distinction: on the one hand, there are languages where two comparative notions, the comparative and the superla-

tive, are expressed by the same pattern; in Arabic, for instance, the adjective, which is usually built on the template $C_1aC_2\bar{\imath}C_3$, has the template $aC_1C_2aC_3$: the form *kabīr* 'great, big' becomes *akbar* (masculine only; the feminine is *kubrā*), whose function and meaning 'bigger, the biggest, very big' varies according to the syntax. On the other hand, there are languages where two of the notions in the list, for instance comparative and superlative, are expressed by two distinct patterns, which at a certain period start to be employed in the same contexts. In addition, the original graded forms are ousted from the paradigm, especially the comparatives, and are subsequently lexicalized as autonomous entries in the lexicon (see Section 3.1.1.1.3). Undoubtedly, Latin belongs to this group of languages.

– Fifth, another notion should be added to the those in Table 1, which in Heine's terms would be the "inferior superlative" and in traditional terms the "relative superlative of minority". Even though this notion is rarely expressed explicitly and its form is rather rare among the languages of the world, it is well attested in Latin. Moreover, each of the aforementioned notions can be absolute or relative – that is, each of them occurs in our texts with the standard explicitly expressed (all the technical terms are introduced and illustrated in Section 1.2.1). As already noted, all these notions occur with very great differences in frequency and some of them are almost non-existent, such as the absolute comparative of minority (but see Cic. *nat. deor.* 3,44), especially if compared with patterns like those of the comparative of majority or the absolute superlative.

In Latin the following patterns are attested, although some of them, specifically those that express gradation of minority, occur only sporadically.

a. the positive
   Marcus sapiens est
b. the equative
   Marcus tam sapiens est quam Antonius
c. the comparative of superiority
   Marcus sapientior est Antonio / quam Antonius
c′. the absolute comparative of majority
   Marcus sapientior est
d. the comparative of inferiority
   Marcus minus sapiens est quam Antonius

d′. the absolute comparative of minority
Marcus minus sapiens est
e. the relative superlative
Marcus sapientissimus omnium est
f. the absolute superlative
Marcus sapientissimus est
g. the relative superlative of minority
Marcus minime sapiens omnium est
g′. the absolute superlative of minority
Marcus minime sapiens est
h. excessive
Marcus nimis sapiens est

As already noted, whereas from a cognitive point of view all these notions are clear-cut, their linguistic expression can be somewhat ambiguous. Not only, in fact, can some forms acquire or develop a comparative or superlative they did not originally possess, in some cases the comparative and especially the superlative functions are only secondary developments; in other cases, they can mark the original sense which in the course of time became only a frozen meaning. For example, the German adverb *sehr* 'very, much', which is regularly employed to express the absolute superlative (*sehr gut* 'very good'), developed this function only recently, since its original meaning is 'sick, ill' and is etymologically related to Eng. *sore* (cf. Luke 2,9 [AV 1611]: *and they were sore afraid*), and ultimately to Lat. *saevus* 'terrible'.

Latin is a language which throughout its history exhibited a very rich and complicated situation, in which many contrasting phenomena occurred together.

Given that the comparative and superlative are the forms that are most likely to be interchanged as a consequence of the confusion of the notions they express, it is relevant to point out here that the majority of the remarks that apply to the comparative construction can also be applied to the "superlative construction". In this respect, the notion labeled "excessive" by Heine is cognitively different from the other gradational notions: generally speaking, it is only sporadically expressed by the same adverbs that are employed basically for the superlative; but it never interferes with the gradational system globally. In Latin, for instance, *nimis* 'too, too much', *nimium*, *nimie*, *nimio*,

which are the adverbs that usually express the excessive, occur in the absolute superlative construction (Hofmann & Szantyr 1972: 163). Given the different cognitive bases and the fact that the excessive is never accompanied by a standard (a sentence like **John is too smart than Bill* is ungrammatical) – in other words, because the excessive is not a true comparative pattern – it is not treated in this chapter.

For our purposes, however, given the particular relevance of the comparative construction, the following definition is a reliable starting point, even though it needs some refinement in several respects:

> A construction in a natural language counts as a comparative construction (and will therefore be taken into account in the typology) if that construction has the semantic function of assigning a graded (i.e. non-identical) position on a predicative scale to two (possibly complex) objects. (Stassen 1985: 24)

As a matter of fact, comparison can be expressed by a number of significantly different morphological and syntactic tools from language to language. This remark would be absolutely trivial were it not that, as noted above, many languages have at their disposal more than one pattern to express comparison and, in many languages, including Latin, the full inventory of patterns expressing comparison has been detected only recently. I refer to sentences containing verbs of surpassing such as *superare* 'to win' or *anteire*, *antecellere*, and the like, all basically meaning 'to surpass' when occurring in patterns like *aliquem aliqua re superare* or *alicui aliqua re antecellere*. To these verbs in such a syntactic pattern a comparative function is now ascribed which in traditional grammars went unnoticed.

In order to deal with the issue of this chapter, and to provide the reader with some basic but essential concepts, the description and the analysis of the elements that constitute a comparative structure must now be addressed.

1.2. The structure of the basic comparative pattern

1.2.1. The elements of comparison

In the interest of brevity, in the present chapter we refer to both the comparative and the superlative forms as "gradational", a general hyperonym for

the entire comparative notion. Needless to say, special attention is paid to the two most frequent notions, comparative and superlative, independently of the form they take, either synthetic or analytic, and the function that is involved. It must be observed, in fact, that these two notions are used much more frequently in the absolute, without any standard expressed, than in the relative; in the case of the absolute form, the label "elative" is also employed in the literature.

In (1a), the five identifiable elements are:

John	COMPAREE: the entity – the person in this case – that is compared to the standard;
more	PARAMETER MARKER: the morpheme expressing the degree according to which the parameter is evaluated;
clever	PARAMETER: the cognitively salient feature that the speaker wants to stress;
than	PIVOT: the element that introduces the standard and distinguishes at the same time the predication from the presupposition;
George	STANDARD: the entity, i.e. the person, that is taken as the standard and establishes the point of reference.

(1) a. *John is more clever than George*
b. *deniz dağdan (daha) güzeldir*
sea mountain.from (more) beautiful.is
'the sea is more beautiful than the mountains' (Turkish)
c. *John is smart-er than George*
d. *John is rather/very smart*
e. *John is smarter than Bill*

Of course, the terminology can vary: for instance, in Heine (1997: 110) the parameter is labeled "predicate", the parameter marker "degree marker", and the pivot "marker of standard", whereas in Dixon's terms the parameter marker is labeled "index" and the pivot is the "mark" (2008: 788). But what is relevant is that the elements identified correspond between these authors structurally and functionally.

The simple structural pattern presented in (1a), which is quite common in the languages of the world, can exhibit some relatively important structural differences affecting all the elements in the list.

First, in many languages the parameter marker can be left unexpressed, as in (1b), from Turkish, where it can either occur or not. This absence of the parameter marker is frequently associated with rigid SOV languages, and it has been claimed to occur in Latin as well, which was never a rigid SOV language. However, the passages that were supposed to witness the existence of this feature in Latin did not pass the severe scrutiny of Timpanaro (1978), who showed in his survey that there are only a few examples, and they are rather uncertain. One occurs, for instance, in Enn. *ann.* 50: *ferro se caedi quam dictis his toleraret* 'he would prefer to be killed by a sword than by these words', where, however, the parameter marker *magis* or even an adverb endowed with a gradational nuance like *potius* could have occurred in the preceding verse, which unfortunately is lost. In any case, it must be observed that, strictly speaking, this example is not a case of comparison but rather illustrates an alternative between two entities.

As a matter of fact, given the clear absence of examples of *positivus pro comparativo*, in this chapter it is held that in Latin the occurrence of the parameter marker in the comparative strategy is obligatory and cannot be omitted under any circumstances.

The second possibility, again rather common among the world's languages, is when the parameter marker is represented by an affix attached to the parameter itself, as in (1c). As already stated, this is the basic pattern in inflectional languages and the commonest one in Latin as well, where it competes with the analytical pattern using the adverbs *magis* and *plus*, both meaning 'more'. *Magis* and *plus* survived in the Romance languages, whereas the synthetic comparative did not except in a few relic formations dealt with in Section 3.1.1.2.1.

Third, even the pivot and standard exhibit some possible variation. The presence of the pivot in the comparative pattern is strictly related to the morphological type of the language: if it is present, it is usually represented by a free morpheme, which can either be dedicated, like Eng. *than*, or, is very frequently a preposition, mainly performing other functions and also taking on the comparative function; a typical example is It. *di* 'of'.

But in case the pivot is lacking, then the standard is expressed in a specific inflectional case, which represents the second element of the comparison. The grammatical case that expresses this function obviously varies from language to language: for instance, in Latin this function is performed by the ablative,

in Ancient Greek by the genitive, in Hittite by the dative-locative, and so on. It should be noted that a special inflectional case for the standard in a comparison of majority represents a typological rarity, documented, to the best of my knowledge, only in some Dravidian languages, Telugu (Krishnamurti 1998: 214) and Old Tamil (Steever 1998: 20). But even in the case of Old Tamil, the case ending results from the merging of two different case endings and the new comparative function developed, replacing the old ones completely.

It is clear, then, that combining the different morphosyntactic possibilities for comparatives can result in a relatively large number of syntactic patterns, with a considerable range of variation.

Not all the elements of a comparison are present in all gradational patterns, but at least three are obligatory: the comparee, the parameter, and the parameter marker. The pivot and the standard can be omitted, even though there is a difference between the two: the pivot can be absent either when its function is implicitly taken over by the standard, as in Latin, or because of the syntactic type of the language: in isolating languages, for instance, the pivot is usually absent (a more precise description is complex and beyond the scope of the present chapter; see Cuzzolin and Lehmann 2004). The standard, on the other hand, can be absent, if the sentence does not require any further specification: in this case the comparative does not strictly possess a comparative sense but simply has the meaning ‘rather X, very X’: the label is “absolute comparative”, illustrated *passim* below.

Moreover, it is worth noting that in some grammatical traditions absolute comparatives and superlatives are frequently referred to as “elative” (from Latin *elativus* ‘that which brings up’), stressing that both categories adopt the relevant feature. In this sense a sentence like (1d) would be described as “elative”, whereas a sentence like (1e) would be described as a true comparative. Interestingly enough, Hofmann & Szantyr (1972: 162) on this point synthetize their viewpoint as follows: “Das Wesen der Elation is affektiv, der Komparation intellektuell”. This claim is interesting in several respects, and it is certainly correct to point out that after Sapir (1944) the issue of comparison as a cognitive process in itself never received due attention or scientific debate, even though interesting and useful studies on this subject have been published from different point of view (Stassen 1985; Xerberman 1999). The cognitive framework casts new light especially on how the comparative and superlative constructions arise and develop (see the fundamental pages

in Heine 1997). However, this perspective goes beyond the aim of the present chapter.

At least two remarks concerning the absolute comparative are in order here.

First, even though a form can be explicitly marked with a morphological or lexical parameter marker, this does not mean that the comparative pattern necessarily implies a standard, either logically or pragmatically. Of course there are some exceptions, which can be accounted for in terms of their semantic content. For instance, a sentence like (2) simply stresses the fact that Velia was very dear, without any implication of comparison, whereas a sentence like (3) implies a comparison, even though no standard is expressed. *Cariora* explicitly refers, and therefore implicitly compares, to *cara* in the preceding line.

(2) Cic. *epist*. 7,20,1: *amabilior mihi Velia fuit, quod ab ea te sensi amari*
'I found Velia all the dearer to me, because I felt you are dearer to Velia'

(3) Plaut. *Aul*. 375–376: *cara omnia. / atque eo fuerunt cariora, aes non erat*
'everything dear, everything! Yes, and all the dearer for my not having any money!'

Second, in general absolute comparatives, and especially absolute superlatives, as is shown in Section 4.2, are more frequently used than might be assumed, not only in modern languages but especially in ancient ones (though, to the best of my knowledge, data on this specific point are lacking). In Latin, for example, absolute comparatives occur much more frequently than expected and, even more importantly, much more than the comparative-with-standard. Even from these brief observations it is easy to see how many comparative subpatterns the various combinations of the five elements can give rise to. Some turn out to be particularly productive and play a special role in the history of gradation in Latin. This point is treated in some detail in Section 3.

However, what characterizes comparative constructions and represents the relevant parameter by which they are classified is the way the standard is expressed and, consequently, its syntactic character. Therefore, the various

comparative constructions are labeled according to the way the standard is syntactically encoded (Stassen 1985). While in this chapter the morphological aspects of the various syntactic patterns occurring in Latin are taken into account whenever necessary, the main goal of the following pages is to describe the way the standard was encoded in the history of Latin, the origin and development of the various comparative and superlative patterns encoding it, and the investigation of the relationship among the various patterns that express gradational notions, including their typological makeup.

1.2.2. The interplay between morphology and syntax

From the viewpoint of morphological theory, it is usually assumed that the morphs of which both the comparative and the superlative forms are made are inflectional rather than derivational (with a few scholars taking the other view: see, for instance Blevins 2001). More precisely, comparative and superlative morphs belong to *inherent inflection* as opposed to *contextual inflection*, according to the definition put forward by Booij (1996: 2): inherent inflection "is the kind of inflection that is not required by the syntactic context, although it may have syntactic relevance". This definition helps to explain some phenomena, such as the fact that in comparing two adjectives the marker of comparison can occur in both of them or in only one, thus giving the comparative construction a chance to develop in a special way, such as through lexicalization of graded forms in Romance (see Section 3.1.1.1.3).

In fact, what is relevant to the classification, not only typologically but more generally, is nothing more than the way the standard of comparison is expressed (see Section 2). Instead, the way the marker of comparison is expressed, whether it occurs as a morphological element like *-er* in *smart-er*, or as a lexical one, for instance an adverb like *more* in *more useful*, is not as important as the standard of comparison, because the process by which the comparative is formed does not affect the nature of the comparison. This turns out to be, in fact, a "conservative change", according to Benveniste's terminology (1968: 85–86; conservative changes are opposed to innovative changes) – that is, the replacement of a morphological category with a periphrastic category in the same function. In other words, the fact that in the history of Latin the marker of comparison acquires syntactic independence as an adverb *(magis/plus carus*) and ceases to be expressed productively as a

morpheme on the parameter (*carior*) is a change which is irrelevant for the typology of the comparative patterns (the comparative is explicitly mentioned by Benveniste as an example of conservative change). In addition, in the development from Latin, and possibly from Indo-European, to the Romance languages analytical formations almost completely replace synthetic ones, according to a tendency well attested in the world's languages and involving the vast majority of morphological domains, not only comparison. This phenomenon, therefore, has to be treated as a major typological trend and not a feature proper to this domain only (for a general overview see Schwegler 1990).

1.3. The various comparative patterns

There is another distinction, envisaged more on logical than cognitive grounds, by which the three comparatives could be grouped: the distinction between patterns that express difference between the comparee and the standard; that is, the comparatives of majority and minority, as opposed to the comparative of equality, which does not express any difference. As a matter of fact, however, Latin employs different syntactic patterns, each partially overlapping the others. Therefore, such a distinction turns out to be interesting from the theoretical viewpoint but scarcely fruitful, if applied to a language like Latin.

So-called "traditional grammar", grammar going back to the Greco-Roman tradition, distinguishes precisely two types of comparison (Cuzzolin and Lehmann 2004): *comparative*, in which an element X is compared with respect to an another single element Y: *John is taller than Bill*; and *superlative*, in which an element X is compared with respect to all the other elements of a set (*John is the tallest of all the schoolboys*).

The comparative and superlative can be subdivided into smaller groups. From a functional point of view, the comparison can be:

(a) of majority, where the comparee shows a quality or a feature to a greater degree than the standard: *John is taller than Bill*;
(b) of minority, where the comparee shows a quality or a feature to a lesser degree than the standard: *John is less tall than Bill*;

(c) of equality, where the comparee shows a quality or a feature to the same degree as the standard: *John is (as) tall as Bill.*

The superlative, on the other hand, is normally taken to only be of majority: *John is the most educated of all* or *Shana is the smartest of all the girls*. Nonetheless, the superlative of minority exists in many languages, and in fact in English it is possible to have a sentence like *John is the least educated of all.* Such a sentence is possible in both English and Latin and in the many other languages that possess a specific construction that expresses the superlative of minority. This strategy is rather infrequently used and, furthermore, it can only be conveyed through syntax; as far as we know, no language expresses it morphologically (Cuzzolin and Lehmann 2004): there is no known language that possesses an affix meaning 'the least X'. The absence or relative infrequency of this strategy is accounted for by the fact that, from a cognitive point of view, languages tend to classify, and therefore to compare, entities according to their being big, heavy, or cold rather than to their not being small or light, or even not being big or not being heavy.

The conditions under which *minime* could develop the function proper to the adverb in the superlative of minority is still observable in Cicero. In (4), *ualde* basically modifies *obscurus*, even though it occurs stranded from the adjective; it is less likely that *ualde* could perform the function of a sentence adverb. The scope of *minime* could in principle be the sentence itself, but here it is simply the adjective *obscurus* recoverable from the first part of the nominal sentence.

(4) Cic. *div.* 2,133: *ualde Heraclitus obscurus, minime Democritus*
'Heraclitus is really obscure, not at all Democritus'

Given its marginal relevance to the content of this chapter, this construction will be referred to only when strictly required.

From a general point of view, Latin belongs to the group of languages in which there is a specific morphosyntactic construction for each of the types of comparative and superlative strategies mentioned above, expressed through both morphology and syntax. There is, however, a difference: the morphological devices were inherited from the proto-language and find almost perfect correspondences in the other old Indo-European languages such as Vedic or Ancient Greek, whereas the syntactic devices, which were destined mostly

to replace the morphological devices, are typically Latin innovations that became relevant syntactic features in the Romance languages.

In this chapter we mainly concentrate on the comparative of majority and the relative superlative, given their relevance to our investigation (see Section 2).

1.3.1. Sapir's analysis of gradation

In a very detailed and still fundamental paper devoted to gradation as a psychological process, which has unfortunately been rather neglected (1944), Edward Sapir showed that the features listed below are applicable to gradation as a unitary process, implicitly involving both comparatives and superlatives. (The word "psychological" could probably be replaced by the more current label "cognitive" without misrepresenting or distorting Sapir's perspective). It is worth noting that the distinction between comparative and superlative, very common in many grammatical traditions, is not crystal-clear in all natural languages. This means, among other things, that its origin and development are rather late, not only in the Indo-European family but more generally among the world's languages where such a distinction occurs overtly marked. In the present chapter these two functions are treated separately, given that in Latin they exhibit two distinct sets of morphological and syntactic features, though their functions overlapped throughout the entire history of Latin, with especially high frequency in Early and Late Latin.

More or less in the same vein, this viewpoint was expressed by Kuryłowicz:

> The so-called superlative represents the formal renewal of the primary function, i.e. of the absolute intensive. The historical comparative presupposes, just like a transitive verb, a dependent noun; its absolute use is secondary. On the contrary, the primary function of the historical superlative is its absolute use; constructions like Lat. *omnium virorum clarissimus* 'the most renowned of all the men' are secondary even from the synchronic point of view. (1964: 230)

The approach to gradability adopted by Sapir as an intrinsic feature of comparatives and superlatives is of the quantitative type, and it turns out to be useful for the analysis of the data presented here. These are the features

proposed by Sapir that can be usefully employed in the analysis of the comparative strategies:

1. Every quantifiable, whether existent (say *house*) or occurrent (say *run*) or quality of existent (say *red*) or quality of occurrent (say *gracefully*), is intrinsically gradable. . . .
2. As soon as a quantifiable has been quantified, the resulting quantificate necessarily takes its place in an infinite set of graded quantificates. . . .
3. Instead of directly quantifying a quantifiable in terms of count or measure . . . one may content oneself with an indirect quantification by means of quantifiers which are thought of as occupying positions in a sliding scale of values of "more" and "less" . . . .
4. Instead . . . of quantifying by means of terms which grade only by implication we may grade explicitly. (1944: 123–124)

These passages need some comment: whenever possible, examples taken from Latin are used to make the line of reasoning clear.

Point 1 explicitly claims that any word class, including verbs, can undergo a process of comparison, at least in principle. Typologists, however, have stressed the fact that the comparative strategy prototypically applies to adjectives (Croft 2001 § 2.4.2, Langacker 1987), but in principle any major lexical category can undergo comparison. For example, the comparison of nouns, though rare among the world's languages, is well documented, even in Latin: Skt. *vīrátara-* 'hero', lit. 'more man'; Lat. *matertera* 'aunt', lit. 'more mother' (however, for a new interpretation of the Indo-European forms, see Baldi and Cuzzolin 2010: 55; see also Cuzzolin and Lehmann 2004). Such a formation also exists outside the Indo-European domain: see, for instance, Hung. *rókabb* 'slyer', lit. 'more fox'.

It is well known, moreover, that in languages like Japanese adjectives share core syntactic properties with verbs: it is not surprising, therefore, that in Japanese verbs can normally undergo comparison. In Latin (see Section 3.3.4), and contrary to what is usually assumed, a comparative strategy is attested that cannot be immediately compared with that typical of Japanese, but it is expressed through verbs: a sentence like *Antonius Marcum doctrina superat* 'Anthony exceeds Marcus in learning' (= 'Anthony is more learned than Marcus') functionally corresponds to *Antonius Marco doctior est*. This phenomenon is admittedly rather rare among the Indo-European languages and

parallels are scarce, occurring in a few other languages, including Ancient Greek. Therefore, even though the feature of comparison expressed through verbs has been ascribed to the proto-language (see Puhvel 1973 and Andersen 1980), a distinction has to be drawn between languages where this construction is original, as in Latin or Vedic, and languages where it is likely to be a syntactic calque from Latin as a language of cultural prestige, as in Italian or English.

However, the comparison can involve not two entities but two states of affairs represented by two sentences. In this case, the comparison is between two sentences, and the second is called the comparative clause. For this clause (see Tarriño this vol.).

Point 2 states that everything that is compared implicitly takes a place on a scale of graded values. What is compared is compared *relatively* and has consequences for the semantics of the comparee. A sentence like *John is bigger than Tom* does not necessarily mean – paradoxical though it may seem at first sight – that John is big, but only that he is big in comparison with Tom; or, more precisely, that Tom could be small. The syntactic properties of a gradable are evaluated according to this parameter: if an entity cannot be set on a relative scale of gradability, it cannot occur in a syntactic structure of comparison, nor can it have a comparative morphology. Point 2 also accounts for the fact that a superlative form can occur as the standard of a comparative, as in Plaut. *Trin.* 393: *uerum meliora sunt quam quae deterruma* 'but things are better than what is the worst', where *meliora* refers to *optima* in the preceding verse.

Relational adjectives, which are morphologically derived from nouns, for instance technical terms, cannot, or tend not to, occur in comparative structures: in Italian, for instance, a sentence like **la mia scatola è più cranica della tua* '(lit.) my case is brainier than yours' (*scatola cranica* 'brain case' is an idiomatic expression in Italian, thus defining a lexical unit) is semantically ill-formed in much the same way that words like *manualis* or *ocularis* also do not occur with a comparative suffix, even though, according to the rules of Latin morphology, **manualior* would be perfectly well formed (on the issue of relational adjectives see Bisetto 2010, esp. 72–73, 76–77). Apparently, there are some obvious semantic constraints on the possibility of creating a comparative or superlative syntactic pattern or even a morphological one.

Point 3 is closely tied to the previous one, since it explicitly states that comparison is a process involving evaluations expressed in relative rather than absolute terms: in many cases the comparison can be overtly specified by adverbs or phrases that express the relative majority or minority of the comparison, providing additional information to set the standard on the scale. Compare sentences like *that house is far bigger than this one* or Caes. *civ.* 1,43,1: *atque in hoc fere medio spatio tumulus erat paulo editior* 'and near the middle of it a hill somewhat raised above the level'. In any case, if it is given, the additional information on how much bigger an element is than another is much more frequently in relative degree, not in absolute, unless the text containing the comparison belongs to a technical genre.

Point 4 states that comparison, as a cognitive process, can be expressed in an explicit, absolute way rather than a relative way. This point turns out to be very close to point 3. For instance, instead of a sentence such as *John is bigger than Tom* one can say *John's weight is 155 pounds and Tom's is 152*. In this case the comparison is expressed implicitly. However, even though languages tend not to be so precise unless specific communicative conditions are required and cannot be left unspecified, the attempt at being precise can not infrequently be expressed in some languages in particular semantic domains like length or width. In Latin, a text where information of this type is frequently supplied is Caesar's *de bello Gallico*, as in 2,16,1: *inueniebat ex captiuis Sabim flumen a castris suis non amplius milibus passuum X abesse* 'he discovered from the prisoners that the Sabi river was no more than ten miles from his camp'.

Sapir's results can be integrated into the typological framework; many of his remarks and claims correspond to syntactic patterns that have been found among the world's languages that are used to express comparison. I return to this point in Section 2.

Thus far, comparison has been dealt with in a general perspective. However, even though we implicitly but obviously assume that comparison is represented in a sentence like *John is taller than Bob*, there are in fact three viewpoints according to which comparison can be thought of and, consequently, expressed: comparison of majority, comparison of minority, and comparison of equality. These three comparative patterns are surveyed below.

1.3.2. Comparison of majority

Given its basic cognitive status, comparison of majority is comparison *par excellence*. A pattern expressing such a comparison occurs in every language (see Section 2), very frequently expressed through grammatical morphemes and not lexically. From a functional point of view, comparison of majority usually represents the fact that, given a parameter for classifying two distinct entities or sets of entities (inanimate or animate objects) along a scale, relevance is given to the entity that exhibits, or is affected to a greater extent by, the quality or feature indicated by the parameter. *This ball is bigger than that* simply means that there are two balls put along a scale of bigness and one is given more relevance than the other.

There is another type of comparative pattern, symmetrical but reversed: in the case just mentioned, two distinct entities are compared according to one specific parameter; in the other, one entity is evaluated according to two distinct parameters, as in *John is more curious than clever*. The same construction can also be found with adverbs: *John is behaving more cautiously than effectively*, or even with verbs: Cic. *epist.* 4,7,1: *gratulari magis uirtuti debeo quam consolari dolorem tuum* 'I must congratulate you on your virtue more than I must comfort you on your sorrow'.

As can easily be seen, the two patterns overlap to a great extent but also differ in some specifics: First, there is no real comparison between the fact of John's being curious and being at the same time clever, since both qualities are presupposed to belong to the set of qualities that are ascribed to John. Second, the qualities involved are not put on any scale at all, since they are intrinsically of different value.

From the functional point of view, two-parameter comparison is not a case of comparison proper, but rather of evaluation, noting, however, that the syntactic structure is almost the same as in the standard construction. Moreover, from the semantic point of view, the two-parameter construction exhibits some other properties that are beyond the present investigation. The only syntactically relevant remark is that in this case there is no actual expression of the standard.

1.3.3. Comparison of equality

According to what has been claimed so far, the same line of reasoning can also be applied when the comparative procedure involves two or more entities that turn out to be equal. Therefore a comparison is established not only in an example like *John is taller than Bob* but also in a sentence like *John is (as) tall as Bob* or in Latin *lupus tam uorax est quam leo* 'the wolf is as greedy as the lion'.

As Sapir observes,

> "Equal to" may be defined as the quantitative application of the qualitative "same as", "more than" and "less than" being the two possible kinds of quantitative "different from". But it seems more satisfactory, on the whole, to define "equal to" in a more negative spirit, as a more or les temporary point of passage or equilibrium between "more than" and "less than" or as a point of arrival in a scale in which the term which is to be graded is constantly increasing or diminishing. (1944: 136)

In any case, a sentence like *John is (as) tall as Bob* turns out to a special case of comparison, namely the one in which the gradation of the affected quality is the same in the case of the comparee and the standard.

Even though comparison of equality can be conceived, at least from a logical point of view, as a special case of comparison of majority, it is, however, usually expressed with specific morphosyntactic tools. To the best of our knowledge, there is no language where the morphosyntactic pattern that expresses the comparative of majority also expresses the comparative of equality.

1.3.4. Comparison of minority

From a cognitive point of view, comparison is a process that is normally applied to salient features of the entities involved. In comparison of minority, the perspective adopted is reversed: it is certainly cognitively marked to compare X and Y in terms according to which X is less [feature] than Y rather than Y more [feature] than X. In fact, it is more normal to say *the horse is bigger than the dog* or *leo uoracior cane est* 'the lion is more voracious than the dog' than *the dog is less big than the horse* or *canis minus uorax quam*

leo est ‘the dog is less voracious than the lion’. Obviously, the last sentence can properly be used in the appropriate context, for instance if the discourse is focused on dogs rather than horses or lions, or better, on the size or voracity of dogs with respect to other animals. This means that in principle sentences like these are not excluded, but are rare (at least, rarer than the others). The fact that they are rare is clearly reflected, even though not accounted for, in the absence of any pattern for comparison of minority expressed morphologically: no language allows for such a construction, and so far no language has been documented that expresses the relative comparison of minority through morphological devices.

It is possible, however, for a language to express the absolute comparative of minority through morphology: this is the case in Latin, where the prefix *sub-* with some adjectives corresponds to *minus* plus adjective (see Section 3.4.1).

There are rare cases, however, where the comparative of minority is expressed by a verb, corresponding to the surpass comparative (see Section 2.3.3). Latin, however, does not possess such a predicate.

1.4. Superlative

Even though the superlative shares many features with the comparative, the cognitive process behind it is distinctively different. Again a long quotation from Sapir is appropriate, in which the complexity of the mental and logical process behind a superlative is clearly illustrated:

> “More than”, “less than”, and “equal to” are the most general grading terms and concepts we have. Owing to our habit of thinking of such triplets as *good–better–best* … as possessing a logical structure which is analogous to their linguistic form, we tend to consider the concepts expressed by *most* and *least* as of the same nature as *more than* and *less than*. A little reflection shows that this feeling is an illusion and that the linguistically suggested proportion *good:better = better:best* is logically incorrect. If a, b, and c are arranged in a series of relative qualities, a may be said to be “good”, b “better than” a, and c “better than” b. But c is just as truly “better than” a as it is “better than” b, in fact more unreservedly or *a fortiori* so. We cannot say that c is “best” unless we know either (a), that a, b, and c are the only members of the series

> that are to be graded, in which case c is "best", not because it is better than b as well as better than a, but because there is no other member of the series which is better than it; or (b), that the quality possessed by c is equal to that grade which is known not to be exceeded by any other possible member of the whole class of gradable members. In the former case c may soon cease to be "best" as other members (d, e, f, . . . , n) are added to the series, though it always remains "better than" certain other fixed members of it. In the latter case c remains "best" throughout. These two meanings of the superlative form are really quite distinct, though they are often confused linguistically. Type (a), e.g. *the most . . . of them*, *the least . . . of them* . . . , may be called the "conditioned superlative" or "relative superlative". The other type, (b), e.g. *the most . . . possible* (= *as . . . as possible*), *the least . . . possible* . . . , may be called the "unconditioned superlative" or "absolute superlative". Both represent unique grades, though in differently ordered contexts, at the upper or lower end of a series. (1944: 144–145)

As observed at the beginning of this chapter, the original function of the superlative was not basically different from that of the comparative: "It is interesting to note that the superlative form is often used to denote a high grade, but not necessarily an apical grade, of the graded quality" (Sapir 1944: 146). At least two facts implicitly support this claim:

– First, in some languages, such as Classical Arabic, the morphology of the comparative and the morphology of the superlative coincide, but not their syntax: *aḥmad*, the elative form of *ḥamīd* 'praised', means 'very praised, more praised, the most praised', depending on the context or the syntactic environment. Something similar happens in Late Latin, where some unexpected comparative forms taking the place of the corresponding superlatives and performing their function are analyzable as superlative only on syntactic grounds. All are illustrated in Section 3.
– Second, in the history of Latin, an overwhelming number of texts of the late period exhibit the comparative instead of the expected superlative and vice versa (Hofmann & Szantyr 1972: 169). What is rather remarkable is that this confusion takes place at the morphological as well as at the syntactic level, when the standards of the comparative and superlative tend to be expressed identically.

From the point of view of typology, it is worth noting that not much work has been done on the superlative, especially as contrasted with the huge

amount of data collected from languages of the world for the comparative. For instance, no typological sketch of superlatives is available like that of comparatives, even though "much of what has been said about comparatives also applies to superlatives" (Heine 1997: 124–125; the structuralist analysis of comparative and superlative in Fugier 1972 rather stresses the differences; see also Fugier 1971).

There are, in fact, some properties that are common to both of them that deserve comment.

1. "The two are likely to involve the same construction, in that the superlative is often built on the model of the comparative";
2. "The conceptual sources are, at least to some extent, the same. ... Perhaps the predominant pattern for forming superlatives is that of replacing an individual standard of comparison (Z) by an entire class of possible individuals, which means typically that the standard is modified by the quantifier 'all' and the like";
3. Points 1 and 2 "suggest that the superlatives may be derived from comparatives but not the converse ... the superlative is a marked category vis-à-vis the comparative." (Heine 1997: 124–125)

The features just mentioned deserve some observations:

– Point 1: This tendency is easily observable in languages with transparent morphology: in Tswana, for instance, the superlative of *ethata* 'strong' is formed by reduplicating the marker of comparison *bogolo* 'more': *ethata bogolo* '(lit.) strong more' becomes *ethata bogolo-bogolo* 'the strongest one' '(lit.) strong more-more' (Heine 1997: 125). A similar process can be observed in most of the world's languages, and it is also evident in most of the Indo-European languages that exhibit synthetic morphology, including Latin: it is correct to compare the Latin superlative suffix *-issim-* with other suffixes used to form the superlative such as Ved. *-iṣṭha-*, Gk. -ιστο-, but Gaulish *-isamo-*. All these forms are analyzable as built on *-is-*, the zero-grade form of the comparative suffix **-ies-/-iōs-* plus another morph that varies according to the different branches of Indo-European where it is attested (still useful is Kuryłowicz 1964). But this also holds for languages that have an analytical structure like Romance or even Latin, at least according to the analytical patterns it shows. In fact, in Latin the adverb used for the superlative is *maxime*, the superlative of one of the adverbs that form the comparative, *magis*. Among the Romance languages this is the

usual relative superlative pattern: in Italian, for instance, the relative superlative *il più bello* 'the most beautiful' is based on the comparative *più bello* with the addition of the definite article *il*. But more generally, this patterns also holds in many other branches of Indo-European as well as in other language families.

- Point 2: The main remark concerns the semantics of superlatives with respect to comparatives. Whereas in the case of the comparative, the standard and the comparee can be set on the scale of the parameter and they presuppose (ablative comparative) or not (particle comparative) the truth of the positive statement, the superlative, given its semantics, always presupposes the truth of its basic statement. In this sense, since in the end the superlative could be described as a comparative strategy in which the standard is represented not by a single element but by the "entire class of possible individuals" (Heine 1997: 124), it basically shares the semantic properties associated with the ablative comparative rather than with the particle comparative. As a matter of fact, in the entire history of Latin, *quam* never introduced the standard in any formal pattern of superlative (cases where a formal comparative has a superlative function are not considered).
- Point 3: The formal counterpart of Point 1. Needless to say, the fact that the comparative can occur instead of the superlative or vice versa does not imply that the comparative can therefore derive from the superlative. Although in Late Latin there are plenty of hybrid morphological creations, no form of comparative is attested based on the stem of the superlative such as **optimior*.

Obviously there are also some properties that also distinguish the superlative from the comparative.

1. "While both use essentially the same conceptual templates, the relative frequency of use differs";
2. "The Goal Schema [corresponding to the standard expressed by the Dative and Allative Comparative – PC; see Section 2] occurs as a means of expressing comparatives but appears to be rarely used for superlatives, and the same also applies to Polarity Schema [corresponding to the standard expressed by the Conjoined Comparative – PC; see Section 2]";
3. "Although superlatives are described … as marked categories vis-à-vis comparatives, there are also unmarked superlatives, and these are rather widespread";

4. "Certain forms of expression are used for superlatives but never for comparatives. This applies, for example, to constructions where the superlative concept is expressed by means of intensifiers like 'very' or 'too' . . . ";
5. "While comparatives are likely to be associated with indefinite marking, superlatives tend to be definite";
6. "There are some languages where (emphatic) reflexive pronouns may be employed for the expression of a superlative notion." (Heine 1997: 125–126)

Even the points just mentioned need some general comment and observation with respect to Latin.

– Point 1: Frequency as a decisive factor in the development of syntactic patterns is still an open issue to which due attention has not been paid. As mentioned in Section 1.2.1, the absolute patterns, both comparative and superlative, are clearly more frequent than the relative patterns: *uehementius*, the comparative of *uehementer*, or *uehementissime*, its superlative, occur without the standard much more frequently than *uehementer* does, especially in texts, such as Cicero's letters, that belong to highly structured and codified genres, where formulaic expressions are very likely to occur. As a matter of fact, in such contexts *uehementius* and *uehementer* never occur with the standard. However, the relationship between frequency of syntactic pattern and textual genre is a question that is never really addressed. Some data have been randomly assembled. What is difficult to establish is a difference in occurrence of the comparative and the superlative, because both can occur freely in the same contexts without any observable difference in function and meaning. This becomes more evident especially in Late Latin, where the two forms are frequently mixed or confused or even give rise to hybrid morphological creations (Hofmann & Szantyr 1972: 168–170).
– Point 2: This point fits Latin perfectly. Heine's statement means that if a language expresses comparison with the standard in the dative or allative case, it tends not to use the same morphological cases for the superlative. The same condition also holds for the comparative expressed by the juxtaposition of the comparee and the standard (the so-called "conjoined comparative"; see Section 2). In Early and Classical Latin, comparatives and superlatives are expressed in a very different way both morphologically and syntactically. Only in Late Latin are there examples of relative superla-

tives expressed in the ablative – that is, with the syntax of comparatives. In any case, there is no example in the history of Latin of a conjoined pattern used for the superlative. This means that the cognitive gap, or simply the distance, between this notion and this pattern cannot be bridged.

- Point 3: There are many languages where the superlative can occur unmarked. The phenomenon involved here does not refer to those adjectives which, even though they do not have any superlative marker, are interpreted as *semantically* superlatives, like Eng. *wonderful*, *exceptional*, and a few others. Rather, it concerns quite ordinary adjectives that receive a superlative interpretation even if they have no gradational marker. This is documented even in the oldest Indo-European languages, including Hittite, where a nominal sentence like *šallayaš šiunaš šalliš* 'the greatest of the great gods', (lit. 'of the great gods great'); and this could have been a feature of Proto-Indo-European (Fortson 2004: 122). However, even if it was possible in the oldest Indo-European languages, in Latin the situation is different: there is a limited group of adjectives that correspond to superlatives from a semantic point of view and tend to occur with no superlative marker, but generally speaking the superlative, just like the comparative, must always be marked by the appropriate parameter marker.
- Point 4: Regarding Latin, Heine's generalization is too broad. If the distinction between absolute and relative constructions is kept in mind, then it is easy to ascertain that it holds for relative, but not for absolute constructions. In Late Latin, in fact, adverbs with the meaning 'very' and 'too, too much', usually employed with absolute superlatives, also occur, to a limited extent, to express comparison (Hofmann & Szantyr 1972: 163–164).
- Point 5: This feature has relevance and is valid in Latin only when comparing relative constructions of the comparative and superlative. It is morphologically covert in Latin, where no marker can possibly be associated with definiteness, even though there could be a possible relationship between the use of the standard expressed by *ex* plus ablative and definiteness in contexts where the comparee is represented by, or occurs with, a quantifier. It appeared in the Romance languages, where the relative superlative is based on the comparative plus the definite article.
- Point 6: This point is restricted, of course, to the absolute superlative, but in Latin this strategy is not productively employed or even attested. Heine's example, Russ. *samaja čistaja voda* 'the purest water (lit. 'itself pure wa-

ter'), if literally translated into Latin as *ipsa pura aqua*, can only have a different meaning, 'the pure water itself', and under no circumstances can it mean 'the purest water'. Needless to say, patterns like Cic. *fin.* 1,71: *sole ipso clariora et illustriora* 'clear and bright as the sun itself', except for the use of the pronoun *ipse*, have nothing in common with the construction illustrated by Russian (see Rosén 1999: 190; also for the interpretation of such expressions as intrinsically equative).

1.5. Some terminological questions

As already observed, comparatives and superlatives represent complex cognitive processes that are very close to each other, despite the fact that they tend to be conveyed by different linguistic tools either morphologically or syntactically. No language is known in which comparative and superlative, when not used in an absolute context, are regularly expressed by exactly the same morphosyntactic devices, even though a certain conceptual overlap between the two categories is undeniable and linguistically well documented.

Stassen's definition of a comparative construction (Section 1.1) establishes, following Ultan (1972), an opposition between comparison of equality (when the position of the objects compared on the predicative scale is the same) and of inequality, on which his study is focused. Versus this binary opposition between comparison of equality and inequality, it is more frequent to establish a tripartition between equality, superiority, and inferiority, as is followed here.

As a matter of fact, the traditional label for the elative is "absolute comparative"; that is, as shown in Section 3, syntactically independent. Therefore, the original function of a comparative form was not to express the meaning 'more X than' but simply 'rather X, very X'.

2. A typological survey of the comparative constructions

In recent years, a great deal of attention has been paid to comparison as a cognitive and linguistic process, especially from the typological point of view (but Jensen's contribution (1934) is still worth reading). It must be pointed out, however, that in the literature on this topic, "comparison" has almost

exclusively meant comparison of majority while the other possible comparative notions have so far been neglected. Consequently, the other comparative notions still lack a typological overview and there is no classification comparable with that worked out for the comparative of majority.

Nonetheless, in the investigation of comparison different typological approaches have been adopted using different perspectives. At least four contributions have been relevant to the topic.

First is Stassen (1985), which tries to classify the comparative construction typologically. It must be pointed out, however, that Stassen's principal aim was to try to establish grounded typological correlations between the way languages express comparison and the way they express temporal subordination, given that he considered comparison to be a metaphorical expression of time, from a cognitive point of view.

Bernd Heine (1997: 112) has adopted a quite different approach, even though, just like Stassen's, it shares a cognitive functional approach to the issue, trying to identify the cognitive domains that serve as the source for the standard of comparison: *source, goal, location, action, polarity, similarity, sequence, topic*.

From a semantic – that is, basically cognitive – viewpoint, however, it is interesting that Ultan (1972) had proposed subdividing the patterns through which the comparison of majority is expressed into two general groups: separatives, which provide a representation of the comparee and the standard in terms of separation and distance; and sociatives, which provide a representation of the comparee and the standard in terms of conceptual proximity. What is relevant is that a language tends to show consistent patterns and therefore tends not to use both separative and sociative patterns. This point is discussed in some detail at the end of this Section.

Finally, Xerberman (1999) proposed analyzing the different syntactic constructions according to a distinction between monopolar (*monopolarnyj*) patterns, those where the standard is expressed through a morphological case, and bipolar (*bipolarnyj*) patterns, where the standard is introduced by a particle or a morphological element that splits the sentence into two logical units; as it happens, only the particle comparative belongs to the bipolar constructions.

In this chapter, Stassen's classification has basically been adopted, but Heine's arguments have been exploited to account for some typological traits that characterize comparatives and superlatives in general.

From a formal point of view, in both comparative and superlative constructions five elements can be identified (Heine 1997: 110); it is worth adding that these five elements are also identifiable in constructions that express the comparative of equality (Haspelmath and Buchholz 1998), and not only in the comparative of majority.

2.1. The comparative

In a comparative sentence like (1a), repeated as (5), the comparative construction can exhibit a variety of syntactic patterns in which the presence or absence of at least two elements, the parameter marker and the pivot, depends on the grammatical structure of the language in question. In Latin and all other Indo-European languages, the pivot is present in the particle construction but absent in the other three types. As for the parameter marker, it was originally expressed with synthetic morphology, with specific morphemes inherited from Indo-European, but in the development of Latin it tended to be replaced by lexical means.

(5) = (1a) *John is more clever than George*

An adjective such as *carus* 'dear', for instance, originally had the comparative form *carior, carius* 'dearer', attested as early as (6). But its analytic comparative form is attested for the first time in (7).

(6) Cic. *Verr.* II 1,112: *quid enim natura nobis iucundius, quid carius esse uoluit?*
'for what has nature ordained to be more agreeable and more dear to us?'

(7) Lucr. 1,729–730: *nil tamen hoc habuisse uiro praeclarius in se / nec sanctum magis et mirum carumque uidetur*
'yet it is seen to have held nothing in it more glorious than this man, nothing more holy, more marvelous and loved'

But other examples occur as late as Verg. *Aen.* 5,725 and Val. Fl. 7,336. From (7) it can be observed that the replacement of the synthetic form takes place exclusively in poetic texts, at least as far as we can see from the data we

have. This, however, is not a sufficient reason to think that poetry, or better metrics, forces poets to adopt one syntactic pattern instead of another. Metrics does not set any constraints on syntax.

This tendency, therefore, is to be interpreted in a broad sense: it properly means that in the end, in the development from Latin to Romance the analytic forms superseded the synthetic.

Clearly, in order to work out a typology of comparative constructions, several elements, and in principle all five of them, must be taken into account, and the history of Latin shows several combinations of elements. However, the only typologically relevant criterion is the way the standard of comparison is expressed. The language in question is then assigned to one type rather than another. For our analysis, therefore, the relevance of the morphological structure of the parameter is secondary, because the change from synthetic structure to analytic did not affect the syntax of comparison over time, and it can be labeled a conservative change – a change that does not affect the comparative value of the pattern (Benveniste 1968).

2.2. The typological patterns

To provide the reader with a general typological framework for describing the various typological patterns of comparison of majority, this chapter employs the six types identified by Stassen (Table 2) (Stassen 1985, 2001; Heine 1997; Xerberman 1999).

Table 2. Types of comparative of majority (after Stassen 2001: 995)

FIXED CASE	Direct object	EXCEED
	Adverbial	SEPARATIVE
		ALLATIVE
		LOCATIVE
DERIVED CASE	Conjoined	CONJOINED
	Non-Conjoined	PARTICLE

Exemplification of the different types, after Stassen (1985), is as follows.

Surpass (= "Exceed") comparative

Duala (Niger-Kordofanian, North-West Bantu)

(8)	*nin*	*ndabo*	*e*	*kolo*	*buka*	*nine*
	this	house	it	big	exceed	that

'this house is bigger than that'

Separative comparative

Mundari (Austroasiatic, Munda)

(9)	*sadom-ete*	*hati*	*mananga-i*
	horse-from	elephant	big-3SG.PRES

'the elephant is bigger than the horse'

Allative comparative

Breton (Indo-European, Celtic)

(10)	*jazo*	*bras-ox*	*wid-on*
	he	big-AFFIX	for-me

'he is bigger than me'

Locative comparative

Tamazight (Afroasiatic, Berber)

(11)	*enta*	*ihengrin*	*foull*	*i*
	he	tall.3SG.MASC	upon	me

'he is taller than me'

Conjoined comparative

Kobon (Papuan)

(12)	*u*	*kub*	*u*	*pro*
	this	big	this	small

'this is bigger than that'

Menomini (Algonquian)

(13) *tata'hkes-ew nenah the kan*
strong-3SG I and not
'he is stronger than me'

Particle comparative

Hungarian (Uralic)

(14) *Istvan magasa-bb mint Peter*
Istvan.NOM tall-AFFIX than Peter
'Istvan is taller than Peter'

2.3. The cognitive bases of the comparative patterns

Even though the present chapter is not intended to discuss the typological patterns envisaged by Stassen, nevertheless some remarks are in order. There has not yet been a detailed investigation of the difference among the various patterns. What follows is no more than a short sketch of the cognitive bases on which they are grounded.

Not very much is yet known about how languages adopt comparative strategies and, when they have more than one pattern, how they combine them. Stassen showed that some patterns tend to correlate more frequently than others, whereas some combinations are not attested at all (1985: 323–324). In his corpus, the following combinations do not occur: Allative-Particle; Conjoined-Separative; Separative-Allative; Exceed-Locative.

In Latin, however, at least the pair Conjoined-Separative is attested, albeit residually, and poses a challenge or invites refinement to the theory. Other patterns are also sporadically attested, as is shown in Section 3: the standard is also attested in the dative, for which an interpretation as allative could be proposed. But the entire issue is problematic and needs a new assessment.

2.3.1. The separative comparative and the particle comparative: A contrastive analysis

As is well known, in Latin four out of the six patterns of Table 2 occur: the conjoined, separative, particle, and surpass comparatives. We begin with the separative and particle constructions because they are the patterns regularly used in Latin. They are discussed together because they were thought of as complementary patterns in their syntactic distribution from Antiquity.

These two patterns are associated, both iconically and transparently, with two different cognitive functions: on the one hand, in the separative comparative the standard is basically represented by a case that indicates source or origin; that is, the standard is the point against which the comparee is tested. In a sentence like *leo cane uoracior est* 'the lion is more voracious than the dog', the voracity of the lion is "measured" against the voracity of the dog taken as the standard of voracity. From the cognitive viewpoint, the measurement signals the distance, and the process of comparing is centrifugal; that is, the standard is represented as the starting point of the process; whereas, when the standard is expressed in the allative case, for instance, the process can be thought of as centripetal and the final point toward which the process is directed.

On the other hand, the particle comparative iconically represents comparison as a form of removal, signaling cognitive distance rather than cognitive proximity. It represents comparison as the centrifugal strategy *par excellence*. As a matter of fact, according to the data collected by Stassen (1985: 324), no language combines the allative and the particle comparative. But there are more than simply cognitive similarities. All this has consequences on the syntax, semantics, and pragmatics of the two patterns.

As recently and correctly observed by Torrego (2002: 258),

> The ablative and the particle *quam* . . . , although they are described in the handbooks as basically equivalent, exhibit very important differences both synchronic and diachronic. The two of them have very different origins: the ablative derives from the separative function. The particle *quam* is related to the relative-indefinite . . . originally a disjunctive-contrastive . . . or other specific formation.[1] [my translation].

1. "El ablativo y la partícula *quam* . . . , aunque son presentadas por los manuales como prácticamente equivalentes, presentan diferencias diacrónicas y syncrónicas muy im-

Moreover Torrego, quoting the relevant papers by Panagl (1973) and Bertocchi and Orlandini (1996), has also pointed out that the difference between the standard in the ablative and that introduced by *quam* with the standard in the case of the comparee is that only in the former does the comparative presuppose the truth or presence of the quality of what is compared, adding other intrinsic semantic features of the two patterns:

> The ablative form presupposes the existence of the quality with which the second term is compared... The standard of the comparison with *quam* has a negative pragmatic implication: this ultimately means that the fact of asserting *filius altior est quam pater* would imply *filius altior est, non pater.*[2] (Torrego 2002: 262 [my translation])

When the standard is expressed by the ablative, both standard and comparee are conceived as belonging to the same nonfinite but virtually closed set or class of elements, cognitively homogeneous: the two elements are singled out from many others.

By contrast, when the standard is introduced by *quam* the two qualities or the two entities compared belong to two different sets of elements, cognitively conceived as heterogeneous. Therefore in *pater altior est filio* 'the father is taller the his son', both the father and the son belong to a set that is taken as homogeneous from the point of view of the feature under consideration – in this case, the quality of tallness – even though the feature in question can be shared to a different degree: both are tall but the father is taller than his son.

In the case of *pater altior est quam filius*, the sentence has the same meaning as the last, but it differs from it in its presupposition: the father and his son are conceived as belonging to two different sets of elements, one being the class of fathers, the other the class of sons, considered inherently different with respect to the feature involved – in this case, tallness. Whereas in principle the quality or feature of tallness could be possessed by neither of the two,

portantes. Difiere mucho el origen de cada una: el ablativo tiene su origen en el valor separativo. La partícula, relacionada con el relativo-indifinido ... de origen disyuntivo-contrastivo ... u otra formación específica".

2. "La forma en ablativo presupone la existencia de la cualidad sobre la que se compara en el segundo término... el T2 [= the standard; PC] de una comparación con *quam* tiene una implicación pragmática negativa: esto viene a ser algo así como si el hecho de afirmar que *filius altior est quam pater* implicara un *filius altior est, non pater*".

the father exhibits the feature in that he is taller than his son, but the feature does not necessarily hold for the son.

In (15a)–(15b) (1st c. BCE), the two sentences are very similar, but for precisely this reason they illustrate the essential difference in meaning and function between the two patterns. As noted by several scholars, the language of Vitruvius is mainly technical and therefore can be considered immune, as it were, from literary artificialities and reliable enough to preserve original functional distinctions.

It is also worth noting that the difference illustrated by (15a)–(15b) remained constant in Latin until its development into the different Romance languages.

(15) a. Vitr. 3,4,1: *supraque terram parietes extruantur sub columnas, dimidio crassiores quam columnae sunt futurae uti* ***firmiora*** *sint inferiora* ***superioribus***
'and let walls be built, upon the ground under the columns, one-half thicker than the columns are to be, so that the lower portions are stronger than the upper'

b. Vitr. 5,1,3: *columnae superiores quarta parte minores quam inferiores sunt constituendae propterea quod oneri ferendo quae sunt inferiora* ***firmiora*** *debent esse* ***quam superiora***
'the upper columns are to be erected a quarter less in size than the lower ones, because the lower columns ought to be stronger for bearing weight than the upper'

It should come as no surprise that (15a)–(15b) are not addressed from the linguistic point of view in the commentaries. In (15a) the lower and upper parts of the building are regarded as belonging to the set of parts characterized by the feature [+*firma*] – that is, stable. Given the architectural characteristics of a building, it is obvious that the lower part must be more firm and stable than the upper part, since the latter rests on the former. In any case, both parts have to be stable. In (15b), although the sentence is almost identical, the presupposition is different: in this case the lower and upper parts do not share the same feature [+*firma*], only the lower columns being characterized by the fact that they bear the weight of the upper columns, which, unlike the lower, have no other weight to bear. And 'unlike' is the nuance conveyed by expressing the comparison with the particle comparative. This feature is

a sufficient reason not to consider the lower and upper columns to share the same presupposition – that is, to belong to the same cognitive set of elements.

The two sentences, however, differ substantially from each other because of the different perspective involved. In (15a), the lower and upper parts of the building are considered to constitute a homogeneous continuum: from a cognitive point of view, they form a set of elements in which all are stable, but a subset, the lower parts, turns out to be even more stable. In (15b), the lower and upper parts are conceived as two sets in opposition, no longer as two subsets of a broader homogeneous set.

In addition, two other points are noteworthy. First, the particle comparative is related to the conjoined comparative, with which it shares not only the same type of presupposition (see Section 3.3.1) but also the structure: it is clear on comparative grounds that, as will be seen in Section 3.3.1, the conjoined comparative represented by subtype (13), with overt negation, developed into a particle negation and the negation was reanalyzed as the pivot. Second, however interesting and important this change may be, in Benveniste's terms it still remains a conservative change, because it preserves an already existing structure. In more current terminology, taken from the language of grammaticalization, it can be labeled a case of transcategorization.

2.3.2. The conjoined comparative

The conjoined comparative is the simplest and most basic strategy for comparison. Benveniste wrote:

> L'expression de la comparaison n'a nul besoin d'une forme spécifique de "comparatif". Comparer deux objets est une opération mentale dont se montrent capables tous les hommes, si rudimentaire que soit leur culture, et cette opération ne requiert pas de forme linguistique spéciale. Il suffit d'énoncer successivement deux objets en leur donnant des prédicats de sens contraire pour que la comparaison soit effectuée. (1949: 126)

Simple juxtaposition, he says, is a pattern sufficient to establish a comparison. This pattern, according to Benveniste, would be so cognitively basic and transparent that it can be taken for "extra-systemic" – that is, it is difficult to make it fit into a general system of comparative patterns. This renders it

difficult to describe and problematic to deal with, especially in diachronic terms.

This pattern, however, which is the basic form of comparison in many languages of the world, especially in Oceania and Africa, is particularly frequent, when employed beside other strategies, for comparing entities or things that are in opposition for the feature involved: as shown by Xerberman (1999: 94), languages of the conjoined comparative type accomplish this, as a rule, in two ways: by *opposition* or by *contradiction*.

The conjoined comparative shares with the particle comparative the feature of distance: given its transparent structure and its origin, it is representative of a comparison in which the comparee and the standard do not share the feature by which they are compared. This is easily understandable, provided that one of the subpatterns in which the standard is encoded – the oldest one, from the diachronic point of view – is the negative counterpart of the feature (see (13)).

In Latin, its presence is witnessed only in some residual traces from the oldest stages of Indo-European.

2.3.3. The surpass (exceed) comparative

The last pattern dealt with here is the "exceed comparative". We prefer Heine's suggestion to label it "surpass comparative" rather than "exceed comparative", because, as Heine puts it: "The verb figuring in the Action Schema may have a variety of literal meanings such as 'defeat', 'win over', 'exceed', 'be more than', 'be better than', or 'surpass'; we use the cover label "Surpass" instead of Stassen's "Exceed", since the former appears to be semantically closer to the ultimate source of comparative markers" (Heine 1997: 114); this label has also recently been adopted by Ansaldo (2010).

The idea of excess and exceeding does presuppose a threshold that should not be surpassed, but this presupposition is unrelated to this pattern and introduces an interfering element into the comparison. It is worth mentioning that this pattern, which is rather common in Latin and can be found from Early through Late Latin, is not recognized as a comparative strategy in the current handbooks. Only in the last decades has it been identified as such.

Unlike the conjoined and particle comparatives, this pattern parallels the separative comparative in that it presupposes the presence of the feature com-

pared in both the comparee and the standard, even though the interplay between syntax and semantics at work in this construction is not yet crystal-clear. But Andersen (1980: 230) has correctly stressed that, technically speaking, the surpass comparative has the same pattern as the conjoined comparative.

For the construction to be interpreted as comparative, the ablative of limitation is obligatory; without it, the expression of surpassing remains generic and allows for interpretations with universal quantifiers.

From a typological viewpoint, it is noteworthy that there are also languages that express the comparison of minority with a verb rather than an adjective: in this case the verb means 'reduce, diminish'. In Tariana, for instance, a language of the Arawak family spoken in the area of the Vaupés River basin in Brazil, "The standard of comparison gets marked by one of the two postpositions: *-waɾaka* 'less than', from the verb *-waɾaka* 'reduce, diminish', or *-yena* 'more than', from *-yena* 'pass, overcome, surpass'" (Aikhenvald 2003: 512). From this quotation it seems predictable that the "negative" counterpart of the surpass comparative is only possible in languages where the positive counterpart occurs; formulated in typological terms, it is very likely that, if a language possesses the negative surpass comparative, it also possesses the positive surpass comparative. But see below, Section 3.4.

2.3.4. Concluding remarks on the typology of the comparatives

From the viewpoint of typology, the situation of the historical development of Latin is unique and represents three challenges to theory. First, to the best of my knowledge, Latin is the only language for which four comparative patterns are attested, at least in the time of Plautus (254–184 BCE). Although it is probable that already in Early Latin one of the patterns, the conjoined comparative, was no longer recognized as a comparative construction, Latin nonetheless counted three other comparative patterns, a typologically unusual condition: the world's languages generally show one or two, but very rarely three patterns like Latin or Ancient Greek. Careful investigation of the different functions they performed still remains to be done; this is a basic challenge to any explanatory model of comparison. For most languages with more than one pattern, it is difficult to account for their distribution; and this is surely a task for future investigation. What is known so far is that if in a

language there are two constructions, they perform different functions, and these functions are likely to be of independent origin (not derived one from the other).

It can sometimes be difficult to envisage the differences among the different strategies of comparison: it is difficult for a speaker of a European language to perceive the comparative strength of a construction like that in Kobon (see (12)), to mention just one type absent from the languages of Europe. This does not mean, however, that that strategy can be considered less comparative than the one common in the languages of Europe.

One case is provided by Koyra Chiini (Nilo-Saharan, Songhay, spoken in Mali), where the regular expression of comparison is through the surpass comparative, as in the vast majority of languages of Africa. "Still another comparative construction involves a simple clause of the type A[djective] V[erb]P[hrase] followed by an instrumental phrase consisting of *nda* 'with' plus the second comparandum. *This construction is most typical of simple intransitive predicates, such as the verbs of adjectival quality*" (Heath 1999: 318 [emphasis added]).

The second challenge concerns the fact that in Latin, as is shown in Section 3, the conjoined comparative is indubitably attested together with the separative comparative – even though it is residual and definitely not productive, it is attested indeed. The coexistence of conjoined and separative comparative is even better attested in other Indo-European languages, such as Vedic. Latin is thus not even the only language where two patterns that according to Stassen are not attested together do in fact co-occur. Stassen's result was not an absolute but a statistically well motivated tendency, namely that languages tend to use only a single cognitive pattern for comparison. For this reason languages tend to avoid comparison through both separative and allative patterns. In any event, the coexistence of conjoined and separative comparatives in Latin, at least at a specific chronological stage, still requires explanation.

A third remark concerns the areal distribution of the different patterns (see Heine 1997: 127–129 and Dixon 2008): whereas the conjoined comparative occurs in almost every language family, and the separative and particle comparatives are typical of, and common in, the European area, the surpass comparative is less expected, though this pattern is typical in Africa and Southeast Asia.

The obvious caveat is that the distribution of the data in today's Romance languages is different from what it was across the same areas in Latin times, so that comparison cannot be geographically based. However, regarding the surpass comparative, if the hypothesis of Baldi and Cuzzolin (2010) that the comparative suffix **-ter-* on adjectives (as in *dexter* 'right-hand, right') is of verbal origin and originally meant 'surpass' is on target, then this pattern is not completely alien to Indo-European and hence to the European area, at least between the second and first millennia BCE.

2.3.5. Comparatives of equality and minority

As pointed out in Section 2, no tentative typological sketch has yet been devoted either to the comparative of equality or to the comparative of minority. However, given the stability of the patterns of expression of these two comparative notions and given that they never underwent any change comparable with those affecting the comparative of majority, I touch on them very briefly, dealing only with what is suggested by their transparency. Unlike the comparative of majority, these two patterns remained basically the same throughout the history of Latin, and stability characterizes this construction in the Romance languages as well. The variation they exhibit in encoding their standard is much more restricted than in the comparison of majority, not comparable in number or variety, although, at very late stages of Latin and in Medieval Latin, the standard – any standard – starts being expressed by only a single phrase, *de* plus ablative, which was to become established as the regular pattern for the standard.

As for the semantic content associated with their syntactic patterns, the fact that the standard is introduced in both cases by *quam*, a particle, signals distance in the case of the comparative of minority. Basically, the same observations are also valid for the comparative of equality.

2.4. The typology of the superlative

Unfortunately, as regards the superlative we do not possess anything similar to what has been worked out for the comparative. Whereas the latter still attracts new investigations from a typological point of view (see Dixon 2008,

who also takes into account areal and sociolinguistic features), for the former "a typological analysis of the superlative is an important desideratum" (Heine 1997: 126). Consequently, the typological investigation of the superlative in Latin below is less exhaustive and detailed than that of the comparative and in some respects more tentative.

Taking for granted that the patterns of the superlative are based on the same relationship as for the comparative, it can safely be assumed that the same functional principles will be projected onto the syntactic patterns through which the superlative is expressed.

However, unlike the particle comparative, for instance, there is no superlative strategy in which the standard is presupposed not to share the graded feature, as can happen in some comparative patterns, independently of the grammatical case in which the standard occurs. This could account for the fact that a structure with a pivot tends not to occur among the world's languages with the particle structure, the latter being iconically and transparently associated with lack of presupposition. At least in this respect, the superlative differs from the comparative; and in this respect, too, all the patterns that occur in Latin and are illustrated in Section 3 represent a variation of a single functional strategy: superlative as a "standing out" from a set of homogeneous elements. In other words, there is no strategy, for instance, that equates the superlative to a process of "approaching" the standard so as to account for a dative or an allative.

As for the superlative of minority, the situation in the world's languages is even less known: there has been no investigation into how languages express this pattern, and it might even be the case that, given the unusual cognitive situation in question, a superlative of the cognitively less salient element, in many languages it is impossible to express such a notion. This is a topic for future investigation.

3. Historical syntax of comparison from Proto-Indo-European to Latin

3.1. The scenario in Proto-Indo-European

3.1.1. Comparative

There is remarkable evidence that the variety in the expression of comparative and superlative forms illustrated above and characterizing Latin is not a feature exclusive to this language, but can be projected back to Proto-Indo-European. It is impossible to reconstruct Proto-Indo-European ancestors for the various attested constructions. This can only mean that the various comparative patterns shown by the different languages are the result of individual processes: each language created one or even more new comparative pattern(s) on its own.

However, whereas scholars have tentatively reconstructed some of the oldest syntactic patterns for the comparative of majority and, more doubtfully, for the relative superlative, for the others, such as the comparative of minority, it is difficult to reconstruct any common pattern in Proto-Indo-European. This task has been almost entirely neglected; I know of no investigation explicitly devoted to this subject.[3] This is why such patterns are treated in this chapter only briefly.

The reconstructed syntax of comparative and superlative constructions in Proto-Indo-European is rather complex. Puhvel (1973) ascribes to Proto-Indo-European four constructions (applying Stassen's later labels to them), and Andersen (1980) has convincingly supported Puhvel's hypotheses.

These are the four reconstructed patterns:

1. The conjunction comparative, attested in Vedic, Greek, and Baltic (Pinault 1985; Viti 2002), is represented by Gk. ἡ τέχνη μακρή, ὁ βίος βραχύς 'art is long, life is short'.
2. The separative comparative is attested in numerous languages; it must be observed, however, that in some languages, because of the restructuring

3. Susanne Zeilfelder's dissertation (2001) on the comparative in Indo-European has remained inaccessible to me.

of the nominal declension, the ablative is replaced by a different case such as the genitive in Ancient Greek or the dative in Old Irish (the latter going back either to an old ablative or an instrumental case);

3. The particle comparative is also attested in numerous other Indo-European languages, such as Ancient Greek ἤ, Gothic *þan*, Old Irish *nó* (ultimately related to the negative connecting particle *nē*; on this point see Laker 2008), Arm. *k'an* (probably related to *quantum* rather than to *quam*; see Zeilfelder 1996).
4. The surpass comparative, besides Latin, also occurs in Ancient Greek and Vedic (see Andersen 1980); it is represented by verbs like *superare*, *antecedere*, *praecellere*, and a few others.

The relationship of the different patterns with one another is not easy to describe, even though clear connections can be envisaged in the historical development. Although this topic is not among the goals of the present chapter, a couple of remarks are in order here.

First, the pattern of comparative particle developing from a negative particle as in Sanskrit or Old Irish (see Section 3.3.1) results from reanalysis of an older conjunctional pattern.

It is difficult, however, to ascribe the four constructions to the same chronological layer. The particle and separative comparatives seem to be very old and occur in the earliest texts. But the particle comparative is not found in Hittite; the hypothesis that Hittite had lost it is unlikely. This suggests that the particle comparative is more recent than the separative. The surpass comparative should be the most recent of the four: according to Stassen, this type preferably associates with a subject–object–verb basic word order, thus pointing to the later stages of Latin. Nonetheless, this pattern is already attested in the *Rigveda* (Section 3.3.4), a datum relevant to the chronology. In short, it is difficult on present knowledge to establish the relative chronology of the four comparative patterns.

Dealing with the origin of the expression of comparison in Latin, only three patterns are basically involved, and only two of them are crucial for the history of Latin: separative and particle.

In his remarkable chapter on the ablative of comparison, Einar Löfstedt summarized the state of the art in the 1950s.

> In den idg. Sprachen zwei verschiedene Kasus als Komparationskasus in Be-

> tracht kommen: der alte Ablativus und der alte Instrumentalis. … Der erstere gibt den Gegenstand an, von dem aus ein Verhältnis beurteilt wird, d.h. mit dem der Vergleich stattfindet. … Der Instr. beim Komparativ bedeutete dagegen: 'zusammengestellt mit', 'im Vergleich mit', 'wie'. … Vom allgemein sprachwissenschaftlichen Standpunkt aus bleibt es also vorläufig eine offene Frage, ob im lat. Abl. Comp. ein ursprünglicher Ablativ oder ein ursprünglicher Instrumentalis vorliegt. (1956: 306)

Since then, the scenario has not changed dramatically, not even taking into account the discovery and investigation of the Anatolian branch, not considered by Löftsedt, who still relied on Brugmann's *Grundriss* (1911).

The three oldest attested languages, Hittite, Vedic, and Greek, express the comparative differently: in Hittite, the standard occurs in the dative-locative ((16); Hoffner and Melchert 2008: 273–275); in Vedic, in the ablative (17); and in Ancient Greek, in the genitive (18).

(16) KUB 19.29 iv 18–20: *nu=wa=kan ANA* ÉRIN.MEŠ=*KA* ÉRIN.MEŠ=*YA mek*[*ki*], *ANA* ANŠE.KUR.RA.MEŠ=*ma=wa=tta* ANŠE.KUR.RA.MEŠ=*YA mekki*[4]
'my troops are more numerous than your troops; my horses are more numerous than your horses'

(17) RV 8,24,20: *ghr̥tā́t svā́dīyaḥ*
'sweeter than ghee'

(18) *Il.* 18,109: γλυκίων μέλιτος
'sweeter than honey'

The similiarities that are absolutely clear are due to coincidence rather than common inheritance, although the fact that both Vedic and Greek employ the genitive can be considered a common innovation. As for the one known Hittite example of a comparative construction with the standard in the ablative, Hoffner and Melchert point out: "Since this is the only example of an ablative in this function, we suspect that the text is not in order" (2008: 274). This case can scarcely be related to the ablative of Latin.

4. The equals sign (=) in Hittite transcriptions indicates a clitic boundary.

There are, however, some other differences between Hittite and Vedic that cannot be go unnoticed: for instance, in Hittite the comparative pattern has no marker of parameter – in (16), *mek*[*ki*] 'numerous' (lit. 'big') is the positive form of the adjective – whereas Vedic already shows the adjective marker provided with a dedicated morpheme. Needless to say, this case has no relevance to the reconstruction of the Proto-Indo-European comparative pattern.

Analysis and interpretation of these data from a typological perspective shows only that the standard was expressed through two different and irreconcilable strategies, at least according to Ultan's generalization (Section 2) and Stassen's explanatory model (1985: Ch. 8).

As for the source of the morphological case, it is obvious that the Hittite dative functionally expresses the standard as a goal toward which the comparison is oriented (see Heine 1997: 116), whereas in Vedic the standard is conceived and expressed as a source from which the comparison derives. The two perspectives are thus mirror images and consequently hardly compatible in any language, including Proto-Indo-European. So, the issue already raised by Löfstedt cannot have an easy solution. And it is also possible that there is not a single solution automatically valid for all branches of Indo-European.

Therefore, given that the morphemes for the comparative (and also the superlative) can be reconstructed for Proto-Indo-European, but not their syntax, a short sketch is now provided of the morphological means of expression of the comparative, and then a description of the syntax.

3.1.1.1. The morphological tools for comparison: Their form and function. Needless to say, word-formation rules, if they exist, crucially concern morphology. If the following paragraphs are devoted to analyzing the comparative (and superlative; see Section 4.1) suffixes, it is because from such analysis, I try to show, insightful conclusions can be drawn about the origin of the comparative pattern in the oldest stages of Indo-European; and also about their syntactic structure.

Of course, all late formations occurring from the post-classical age onward could also be added to the dossier, where for instance adjectives sometime occur with double parameter markers, both synthetic and analytic, such as *magis longior*, for which see Hofmann & Szantyr (1972: 163), but such variation rather reflects a floating situation in the expression of comparison,

especially from the morphological point of view, rather than a clear typological trend.

3.1.1.1.1. The function of the suffix *-*iōs*-. Traditionally, two morphemes are reconstructed for Proto-Indo-European whose function was to express comparison: the first is "an amphikinetically ablauting suffix *-*ios*- (masculine nom. *-*iōs*-, weak cases *-*is*-) added to the full grade of the root" (Fortson 2004: 121).

The suffix *-*iōs*- has the function of *intensifier*, the function of singling out one element among many as particularly characterized by the specific feature expressed by the adjective: the phrase *mitior X* originally meant something like 'X that is rather mild, particularly mild'. In Indo-European the morpheme associated with this function was *-*ies*-, which could also occur in the *o*-grade as -*iōs*-, just as in Latin, where it underwent rhotacism and consequently gave rise to -*iōr*-; or in the zero-grade, appearing as -*is*-.

In examples like *niue candidior* 'as white as the snow can be' and *splendidior uitro* (Hor. *carm.* 3,13,1), the suffix -*iōr*- still preserves its original function of intensifying the quality involved rather than really comparing it (Löfstedt 1954: 315–319; but see below). Adjectives employed in this function are found throughout the history of Latin regardless of literary genre, with a statistical frequency not comparable with that of any modern language, in which the comparative degree almost always implies the presence of the standard.

But a further distinction has to be taken into account: the elative function, by which a feature expressed by the adjective is intensified. This has to be kept apart from the adjective with a real comparative function even in the absence of an explicit standard. In works like Cato's *de agri cultura*, for instance, the numerous comparatives occurring in the text without a standard are real comparatives because the implicit comparison involves the specific object (i.e., a vegetable, an animal) before and after the recommended treatment, as in (19).

(19) Cato *agr.* 61,5: *si male arabit, radices susum abibunt, crassiores fient*
'while bad plowing will cause the roots to come to the surface and grow too large'

There can thus be two different reasons for the absence of a standard: for one, the function of the comparative is elative; for another, the standard is left unexpressed because it is easily recoverable on syntactic or semantic or pragmatic grounds. One possible criterion for distinguishing these two cases is the presence of an adverb like *longe* or an adjective in the ablative case (*ablativus differentiae*): *multo*, *tanto*, *quanto*. In this case the function is always a true comparative (20).

(20) Cato *agr*. 94,2: *si ita feceris, et grossi non cadent et fici scabrae non fient et* ***multo*** *feraciores erunt*
‘if you do this the fruit will not drop prematurely, the trees will not be scaly, and they will be much more productive’

A meaning ‘X that is milder (than Y)’ in fact turns out to be a late development in those languages in which such a meaning is attested (Cuzzolin and Lehmann 2004). Further evidence of this fact is that during the entire history of Latin the percentage of comparatives without a standard is significantly higher than the “true” comparatives accompanied by a standard. This is a feature that distinguishes Latin from the Romance languages, where the comparative is rarely employed without the standard and only in stylistically or pragmatically marked contexts.

3.1.1.1.2. The function of the suffix **-tero-*. The second suffix for comparatives is the thematic suffix **ter-o/a-*. “This was not originally a comparative suffix: its basic function was to set off a member of a pair contrastively from the other member of the pair” (Fortson 2004: 122). Traditionally, the function of this suffix that has been identified as the original is the contrastive: an element is singled out as opposed to, or in contrast with, another element or a whole set of other elements (“*particularizing* and by implication *antonymic*”; Sihler 1995: 356 [emphasis original]). The morpheme already associated with this function in Indo-European was **-(t)ero-* (Hitt., Ved., Avest., OIr. *-tar-*), which also occurs in some cases in the zero-grade as **-tr-*. The original contrastive meaning of this suffix would be still clearly identifiable in pairs of antonyms like *dexter* ‘right’ vs. *sinister* ‘left’, or in a preposition like *inter* ‘between’, a meaning still observable in Cic. *Verr.* II 2,130: *dies XLV inter binos ludos* ‘forty-five days between the two festi-

val periods'.[5] Some implicitly contrastive nouns, such as *minister* 'minister', *magister* 'teacher', are formed by cumulating both suffixes, even though the internal structure of this formation is far from clear. They already existed in Italic, cf. Osc. *minstreis* (see the phrase *minstreis aeteis* in the *Tabula Bantina*, corresponding to Latin *minoris partis* 'of a smaller part').

However, as already mentioned above (2.3.4), Baldi and Cuzzolin (2010) have recently challenged the current view that the original meaning of the suffix **-tero-* was contrastive – it is highly probable that this is a secondary development – and analyze it as a suffix ultimately going back to the root **terh$_2$-* 'to cross, durchkommen, überqueren': it originally corresponded to the surpass comparative.

3.1.1.1.3. Cumulation of suffixes. Morphology partially still reflects the state of affairs described so far. For Proto-Indo-European, a small set of four morphs has been reconstructed: two with comparative function, **-ies-* and **-ter-*; and, correspondingly, two with the superlative function, **-ist-* (= **-is-t-*, with *-is-* the zero-grade of **-ies-*) and **-tat-*.

As is well known, analytic forms of comparatives superseded the synthetic ones. This phenomenon is attested as early as the second century BCE: in one fragment of Ennius the analytic form *plus miser* 'more miserable' occurs instead of *miserior*.

It is worth noting, however, that some synthetic forms of comparative have survived in most Romance languages – those that were irregular and suppletive: *bonus* : *melior* : *optimus*; *malus* : *peior* : *pessimus*. In some cases the positive form was made up by adverbs: *supra* : *superior* : *summus*; *infra* : *inferior* : *infimus*; It. *migliore*, Fr. *meilleur*, Sp. *mejor* 'better' from Lat. *meliorem*. The only language where all synthetic forms died out and only analytical ones survived is Rumanian: *meliorem* did not continue to exist but only *magis bonum*, from which *mai bun* derives. In the older stages of the Romance languages other comparative forms were in use, deriving either from the nominative or the accusative, such as OFr. *graindre* 'bigger', from *grandior*, and OFr. *graigneur*, Occit. *granhor*, both from *grandiorem*, and

5. The mss. read *XXXV* instead of *XLV*, which is an editor's emendation generally accepted; this is, however, irrelevant to the point made here.

both again meaning ‘bigger’.

Some comparative forms were lexicalized in various Romance languages with special meaning: Fr. *seigneur*, It. *signore*, Sp. *señor*, all meaning ‘sir’, from the accusative *seniorem*; OFr. *maire* ‘bigger’ but ModFr. ‘mayor’ from *maior*, the nominative (the English word *mayor* itself is a loanword from French). The same word also occurred in the lexicalized phrase *maior domus* ‘butler’, like It. *maggiordomo*, Fr. *majordome* ‘butler’, attested from Late Latin onward, for instance in the *Historia Francorum* (5,45) of Gregory of Tours.

Already in the oldest Latin texts, alongside the synthetic comparative, analytical forms of comparative and superlative also occur: beside *miserior* ‘poorer’, *plus miser* (see (27) below) is attested with the same meaning. In these cases, the comparative form was replaced by the positive adjective preceded, or even followed, by the adverb *magis* or *plus* (see Section 3.1.1.2.1), less frequently but with the same antiquity as *magis*.

As is well known, some phonological constraints played a role in the choice of the analytical instead of the synthetic form.

First, the analytical form tended to become established as nearly obligatory only with those adjectives whose phonological template was X-V-*us*, where X is any phonological string, V is a vowel (obviously excluding the *u* of the digraph ⟨*qu*⟩), and *-us* is the nominative masculine ending. In particular, some sequences were rigorously avoided (Hofmann & Szantyr 1972: 165). But in fact this was only a strong tendency favored mostly by grammarians; it never became sufficiently obligatory to prevent the formation of comparative forms such as *strenuior*, attested in Plautus (*Epid*. 446) and *idoneior*, which occurs, for instance, much later in the prose of Ulpian (*dig*. 43,29,3,12).

Second, the number of syllables in a word could also constrain the formation of a synthetic comparative with certain adjectives: for instance, adjectives with more than three syllables preferably occurred in the analytic form: Sall. *Catil*. 36,4: *maxume miserabile*, whereas the possible form **miserabilissimus* is apparently never recorded in the entire history of Latin. But in fact this tendency was never established as a morphophonologically obligatory constraint on the formation of comparative and superlative forms, as is clearly seen in such examples as Cicero’s letters to his friends, for instance *honorificentissimis* (*epist.* 5,1,1) or *honorificentissime* (*epist*. 7,10,2) are not

rare (even though not without rhetorical and stylistic purposes), or *formidolosiorem* (Tac. *ann.* 1,62), down to the age of Gregory of Tours (6th c. CE), where forms like *misericordissime* or *familiariores* (both occurring in Gregory's *Historia Francorum* 5,18), again, are not infrequently found.

In Late Latin the number of adverbs that step by step took over the function of *magis* and *plus* in Classical Latin grew enormously: the most frequent are *ualde*, *multum*, *satis*, and also *nimis*, whose original meaning was comparative, as is preserved in the language of archaic authors such as Plautus, *Most.* 511: *nimis quam formido* 'more than fear' or in the colloquial language; the meaning 'too, too much', regular in Classical Latin, was a secondary and late development (see Ernout & Meillet 1985 s.v.). In some cases it is difficult to decide whether they retain their original meaning or are simply elements that reinforce the elative function, as in *Itin. Eger.* 11,4: *modice autem erat acrius* 'it was slightly more sharp' (see also *Itin. Eger.* 10,4).

In any case, the absolute comparative is attested throughout the history of Latin, and in late texts it starts to correspond to a simple positive form, even if it occurred with an adjective or an adverb (21). Here *celerius* could also be translated as 'as soon as you can', but at this stage of Latin, as in many other examples, the comparative adverb corresponds rather to the positive form *celeriter* and simply means 'fast': there is nothing in the preceding text that gives any hint of comparison with anyone, and the addressee is not expected to go faster than at any previous time.

(21) *Hist. Apoll.* 14,1: *rex ait: Vade* ***celerius*** *et dic illi: rogat te rex*
'the king said: "Go fast and say to him: 'The king asks you'"'

3.1.1.2. The lexical tools for comparison: Their form and function.

3.1.1.2.1. The adverbs *magis* and *plus*. The marker of comparison, which was originally expressed morphologically, began to be replaced by lexical resources very early. Even in the earliest Latin literary texts, comparatives are expressed by the adverbs *magis* and *plus* plus adjective.

The etymology of the two adverbs deserves attention. *Magis* and *plus* are not transparent formations: *magis*, whose formation is "étonnante" according to Ernout & Meillet (1985: 379), is supposed to derive from the stem of the adjective *magnus* 'big' plus the suffix *-is-*, zero-grade of the comparative suf-

fix *-ies-/-iōs-*. The formation of *plus* is even less transparent than *magis* (see for instance Meiser 1998: 153–154, who hypothesizes the following path to the classical form: **plēi̯eōs* > **ploi̯es/plou̯s* > OLat. *plous* > CLat. *plūs*): whatever the origin of this adverb may be, and whatever the path that yielded the form *plus* may be, however, it is certainly based on the root **pelh*$_1$*-* 'to fill' (Rix et al. 2001 s.v.). Interestingly, an adjectival comparative built on *plus* survived in some Romance languages: cf. Fr. *plusieurs* 'many', Prov. *pluzor*, both from **plusiores*.

It is likely, therefore, that *magis* was employed when what had to be focused on was a quality, a characteristic, or the like. Thus it would mainly occur with evaluative adjectives; whereas *plus*, given its etymology, would occur when the "quantitative" perspective of the comparee was to be underlined rather than the qualitative, typically with adjectives of quantity or physical dimension. Unfortunately there is no clear evidence that the distribution of the two adverbial intensifiers was ever ruled by the semantic principles assumed here. Even though specific investigation on this point is still to be made, from the beginning of Latin *magis* and *plus* apparently occur in the available texts without any semantic constraint due to their meaning or even to the meaning of the adjectives they intensify. However, in the oldest texts *magis* occurs as intensifier of comparative adjectives more frequently than *plus* (22).

(22) Enn. *ann*. 176: *bellipotentes sunt magis quam sapientipotentes*
'they are more powerful in war than in wisdom'

In post-Classical Latin, when the phonetic weight of the comparative morphemes probably began to attrite, their function was reinforced by adding a comparative adverb (23).

(23) Apul. *met*. 11,10,5: *quartus aequitatis ostendebat indicium deformatam manum sinistram porrecta palmula, quae genuina pigritia, nulla calliditate nulla sollertia praedita, uidebatur aequitati magis aptior quam dextera*
'the fourth showed a token of equity, which was a left hand deformed in every place and with open palm, and because it was naturally more sluggish and because there was no cleverness or craft in it, it signified thereby more equity than by the right hand'

In some Late Latin technical texts devoid of any literary intent, the reader can also find some highly unusual cumulations of comparatives and superlatives, whose genesis, other than the traditional account that the different forms were felt as roughly equivalent, remains difficult to account for. See, for instance, (24).

(24) Chiron 216: *qui* (*spiritus*) *per duplicationem crementi magis in nouissimum maior fit*
'which spirit in two increments becomes bigger turning into a very new one'

That *plus* originally possessed this quantitative connotation, different from *magis* and as opposed to *minus* 'less', is undoubtedly supported by some examples occurring in the oldest texts. See, for instance, (25), where *plus* does not actually modify the adjective *magnus*, recoverable from *de magnis*, but rather simply modifies the verb *fit* 'becomes'.

(25) Plaut. *Trin*. 349: *de magnis diuitiis si quid demas, plus fit an minus?*
'if you subtract something from a handsome fortune, does it become more or less?'

But already in Ennius a verse such as (26) can be found:

(26) Enn. *ann*. 18 frg. 3: *septingenti sunt paulo plus minusue anni*
'seven hundred years a little bit more or less'

This juxtaposition can be found throughout the history of Latin down to those Romance languages which still use *plus*, as in It. *più o meno* or Fr. *plus ou moins*. This expression is also recorded in the superlative: see for instance Eutr. 1,1,1: *Troiae excidium, ut qui plurimum minimumque, tradunt*; or, with stylistic variation, Eutr. 4,10,18: *ut qui plurimum uel minimum tradunt*.

The adjective in the periphrastic comparative form with *plus* is attested very early: in the fragments of Ennius's tragedies (27) and in Plautus's comedies (28), but it was rather productive, even though it penetrated the written language very slowly and in an author like Cicero it occurs very rarely as a modifier of an adjective (29), whereas it normally still retains its original nominal sense (it frequently occurs as a verbal modifier, for instance, and with a genitive of quantity). This pattern can also be found in Egeria's time (30).

(27) Enn. *trag.* 261 Jocelyn: *plus miser sim si scelestum faxim quod dicam fore*
'I would be more miserable if I committed the crime that I say will happen'

(28) Plaut. *Cas.* 676–677: *tibi infesta solist / plus quam cuiquam*
'she is hostile to you alone more than to anyone else'

(29) Cic. *Phil.* 11,17: *nec plus extraordinarium imperium ad id bellum quaesitum quam duobus antea maximis Punicis bellis*
'and not a more extraordinary command required for this war than with the two previous Punic wars'

(30) *Itin. Eger.* 6,1: *ut … subito etiam et in centum et in ducentis passibus aliquotiens etiam et plus quam quingentos passus de mari per eremum ambuletur*
'so that one walks immediately even in a hundred steps and sometime in two hundred and more than five hundred from the sea through the hermitage'

In (27), *plus* has an elative function: the adverb intensifies the adjective *miser* and no standard is expressed, whereas in (28) the standard is expressed by the particle comparative, as expected, but the word order is still relatively free and the adverb occurs in a position not adjacent to the modified element. It could also mean that the adverb was not yet completely grammaticalized as modifier of the adjective and therefore that word order was exploited for stylistic rather than for syntactic reasons. This syntactic fact frequently occurs even in Late Latin and in technical authors both with *plus* and with *magis*: see, for instance, (31).

(31) Colum. 2,10,22: *magis tamen utilia rapa sunt, quia et maiore incremento proueniunt et non hominem solum, uerum etiam boues pascunt*
'however, turnips are very useful, because they grow in rather large increments and not only men, but also cattle, feed on them'

However, it must be pointed out that *magis* and *plus* were not used only when they were mandatory, such as when the synthetic comparative forms were ruled out on phonological grounds. It is difficult, however, to envisage

other reasons with certainty. Certainly the analytical forms were used in poetry for stylistic reasons or to achieve mimetic effects through alliteration, for instance; or in prose for pragmatic effect, by separation of the parameter marker from its parameter (as in (31)).

In addition, it has also been claimed that *magis* and *plus* are reflected in the geographical distribution of their descendants in Romance, not without some reason (Bonfante 1937): *magis* would be regionally marked as the adverb used in the peripheral languages such as Spanish, Portuguese, and Rumanian (consequently, it is older than *plus*), whereas *plus* would represent an innovation, since it is preserved in the central area of the Roman Empire and continues in Italian (including the Italian dialects) and French.

Careful investigation of the use of *magis* and *plus* in Latin authors, how they are distributed and under what conditions they are deployed, or even whether there are syntactic conditions under which they cannot be used, is necessary.

3.2. The syntax of comparison in Latin

3.2.1. The various patterns of comparison in Latin

As long ago as Plautus, at least three comparative strategies can be identified with certainty, and a fourth is very likely, on comparative grounds, to have existed as well (Baldi and Cuzzolin 2001). None of them, however – and whether there were three or four comparative constructions is not relevant – is the direct ancestor of the construction that arose and became the standard form for comparison in the Romance languages.

The four strategies are represented by the following patterns:

a. *ego sapiens, tu insciu*s ‘I am wiser than you’
b. *ego sapientior te sum*
c. *ego sapientior sum quam tu*
d. *ego te doctrina supero*

These correspond to the following typological patterns:

a. conjoined comparative
b. separative comparative
c. particle comparative
d. surpass comparative

The two common and productive (though to a different degree) comparison strategies are, throughout the history of Latin, the separative (b) and the particle (c).

In addition to the productive strategies, two others were available from the beginning, the conjoined (a) and the surpass (d). These are discussed at some length in Sections 3.3.1 and 3.3.4 respectively.

Another remark, however, is in order here. The literature on comparison frequently claims that the particle comparative, introduced by *quam*, was the unmarked choice and the separative comparative, using the ablative, was the marked one:

> The structure with the particle … seems to be – mainly because of its frequency and conditions on its usage, the basic comparative choice in Latin, whereas the separative construction in the ablative would be adopted secondarily and would be used with more constraints".[6] (Asensio de la Cruz 2002: 14 [my translation])

This assumption had already been stated very clearly by Löfstedt:

> In *gewöhnlichen Vergleichungen* – mit diesem Ausdruck bezeichne ich … solche überall gewöhnliche Fälle wie 'der Sohn ist kleiner als der Vater', 'ich halte dich für klüger als ihn', 'dies gefällt mehr als jenes' usw. – ist der Abl. comp. in ältester Zeit im grossen und ganzen *nicht* gebräuchlich. (1954: 308 [emphasis original])

However, I think that in this claim two different points of view are being conflated: on the one hand, it is correct that the separative comparative is more restricted than the particle comparative; on the other, I wonder whether frequency can be taken as relevant, given that in the texts examples with the ablative are very frequent as well.

From a diachronic point of view as well, the separative comparative seems undoubtedly to be older than the particle comparative. Therefore, there

6. "La estructura de partícula … parece ser – por su frecuencia y condiciones de uso, principalmente – la opción comparativa primaria del latín, mientras que la construcción separativa en ablativo sería elegida por esta lengua de modo secundario y tendría un uso más restringido."

are good reasons for being cautious in assuming the particle comparative is the unmarked comparative pattern in Latin.

3.2.2. Origin and function of the ablative of comparison

Even the Roman grammarians took it for granted that the original comparison construction was the ablative type and offered explanations of the origin of the particle type that could be refined according to modern typology studies. Only Priscian, whose mother tongue was Greek, thought that the original case for the standard was the genitive, a usage that in Latin is attested only late and marginally, even though it played a central role in restructuring the system of comparison in Romance.

That the ablative comparative was the oldest, unmarked pattern is not a viewpoint universally accepted by modern scholars: given that in the Romance languages the basic pattern is the particle comparative, this situation is projected back to Latin. In my opinion, there is evidence that for centuries, until at least the fourth century, the ablative was the unmarked choice, not *quam*. In the extant texts the ablative comparative outnumbers, and sometimes greatly, the *quam* comparative; which is an argument that cannot be dismissed. But I deal with this issue in Section 3.3.3.

One of the most debated topics in the older literature concerning the ablative of comparison concerns its origin: whether the ablative was originally an ablative of separation or an instrumental.

The Indo-European scenario allows for both interpretations. Since in Latin the original ending of the ablative (*-ōd*) and the instrumental (*-ō*) began to merge already in prehistoric times, leaving only meager traces of their original distinctness, it is difficult to ascertain whether the case of the standard was originally ablative or instrumental. Of the ablative, Löfstedt clearly states (1956: 306) that it "gibt den Gegenstand an, von dem aus ein Verhältnis beurteilt wird, d. h. mit dem der Vergleich stattfindet", whereas the instrumental "beim Komp. bedeutete dagegen 'zusammengestellt mit', 'im Vergleich mit', 'wie' ". Among the supporters of the instrumental was Brugmann, the former teacher of Löfstedt himself.

The reasons in favor of deriving the ablative from an original instrumental are basically:

> Der weitaus wichtigste Gebrauch des Abl. comp. im Altlatein ist also nicht in gewöhnlichen Vergleichungen, sondern in Ähnlichkeitsausdrücken zu finden (wogegen der Typus *maior sum fratre* usw. fast ganz fehlt)" (Löfstedt 1956: 310).

The examples referred to, Löfstedt's "Ähnlichkeitsausdrücken", are primarily well-known cases like *melle dulcior* 'as sweet as honey', *niue candidior* 'as bright as the snow', *splendidior uitro* 'clear as glass', where the ablative is supposed to perform the function of an original equative: in this case a translation such as 'sweeter than honey' would be wrong. Supporting this viewpoint is Hannah Rosén:

> As is well known, with the comparative in so-called proverbial expressions, or rather those in which the compared-to embodies the quality in question, carries it inherently and constitutes the norm by which the quality can be measured … *the ablative alone is admitted.* As a matter of fact, collocations such as *melle dulcior*, *sidere pulchrior*, *luce clariora*, and the like signify equality ('as … as' or 'crystal-clear') – not superiority (more … than). (1999: 190 [emphasis original])

This pattern should therefore be compared with the equative construction of the Celtic languages, where the equative suffix goes back to **-tero-*. An equative interpretation of the suffix *-tero-* has also been proposed for some Homeric examples (e.g., *Il.* 4,277 or *Od.* 11,427; cf. Meid 1967; see also Baldi and Cuzzolin 2010).

According to Löfstedt, there is another reason to trace the ablative back to an old instrumental: "Ein anderer Umstand, der eher auf den Instr. als auf den separativischen Abl. als Ursprung des Abl. comp. hinzudeuten scheint, ist der im Altlat. wiederholt belegte Abl. bei *aeque*, *adaeque*." (1956: 310: N. 1).

However sound and noteworthy these observations may be, the arguments for deriving the ablative of comparison from the ablative of separation are surely no less grounded:

1. First, comparison with other old branches of Indo-European shows that the phrase corresponding to *melle dulcior* uses the ablative or the case that merged with the ablative, such as the genitive in Ancient Greek, and the ablative in Vedic – not the instrumental, even in languages that still

productively had this case: Ved. *ghr̥tā́t* (abl.) *svā́dīyaḥ* 'sweeter than ghee', Gk. μέλιτος γλυκίων 'sweeter than honey'.

2. This hypothesis would conform to a typologically very common tendency among SOV languages, where the unmarked strategy for comparison is the separative comparative.

In principle, it cannot be excluded that the ablative in examples like *melle dulcior* and the ablative in examples like *leo cane uoracior est*, performing a different function, derived from different cases, the former from the instrumental, the latter from the ablative.

It must be admitted, however, that whatever the meaning of the ablative may be, some problems remain and the picture of the origin and development of the comparative strategies in Proto-Indo-European is still far from clear.

3.2.3. Origin and function of quam *as pivot*

The other productive and common pattern in Latin is the particle comparative. Traditionally *quam* has been described as the accusative singular feminine of the relative pronoun with "angleich interrogativ-ausrufende und relative Bedeutung" (Hofmann & Szantyr 1972: 588). Another viewpoint has recently been upheld by Dunkel (1997: 74–76), according to whom, on syntactic and comparative grounds, *quam*, and *tam* as well, would originally be old ablative forms ending with *-m*.

The explanation of its origin offered by the Roman grammarians, accepted by some scholars in the nineteenth century such as Ziemer and Wölfflin, and reported even in Hofmann & Szantyr (1972: 593), is that the particle type developed out of a combination of the ablative type with the pattern proper to the comparison of equality: *Marcus tam doctus est quam Gaius* 'Marcus is as learned as Gaius'. Mixing it with a sentence such as *Marcus doctior est Gaio* 'Marcus is more learned than Gaius', the new syntactic pattern *Marcus doctior est quam Gaius* 'Marcus is more learned than Gaius' came into being.

According to Hofmann & Szantyr, there are also some examples where *quam* more precisely corresponds to *magis quam* (*potius quam*): "Auszugehen ist von den Ausdrücken des Vorziehens, nach denen bloßes *quam* durch den in ihnen liegenden komparativen Sinn gerechfertigt ist" (Hofmann & Szantyr 1972: 593). This tendency developed in Early Latin in the popular

language and then spread successfully to other linguistic layers down to Late Latin.

This explanation, of course, even though it was already proposed by the Roman grammarians, gives the impression of being a gimmick, and to a degree it presupposes a close relationship between the equative and the comparative of majority, an oversimplified scenario that is not supported by our general linguistic knowledge, notably data from other branches of Indo-European and contrastive typological data. Needless to say, some of the opinions of the Roman grammarians about the nature and function of comparative strategies are in fact correct and insightful, but the situation turns out to be more complex and we run the risk of overlooking some basic details necessary to a complete understanding the origin and development of the comparative strategies of Latin if we rely only on those. In sum, while it is not difficult to figure out the conditions under which *quam* could develop its syntactic status of pivot in a comparative pattern, it is almost impossible to recover them in our texts. All this remain largely speculative, and the origin of the pattern with the particle *quam* remains debatable (Ramos Guerreira 2002: 186–187).

3.2.4. Other minor prepositional patterns

Usually omitted from the handbooks are other patterns for expressing comparison: they are formed by prepositional phrases that are supposed not to be additional comparative strategies, but basically to substitute for the ablative of comparison. They have been described as evidence that the syntax of the comparative was changing – and it was indeed – rather than as minor strategies independent of any previous constructions.

The prepositions that occur are numerous: *a*, *ab*, *ante*, *de*, *e*, *ex*, *prae*, *praeter*, *super*, *inter*. It must be stressed that only a few of them played a significant role in the development of comparison strategies, namely *a*, *ab*, and *de*. The preposition *de* was finally the only one that survived in the transition from Latin to Romance. It must be noted, however, that at the same time a relevant typological change took place: *de* did not introduce a morphological genitive case but was reanalyzed as the new pivot of the comparative. This is probably the most relevant typological change in comparison that took place from Latin to Romance.

3.3. The patterns of comparison in Latin

3.3.1. Conjoined comparative

It can be questioned whether the conjoined comparative ever belonged to the set of syntactic patterns used in Latin for comparison; it has only recentlybeen recognized as such (Puhvel 1973). However, that this type is to be ascribed to the oldest stage of Indo-European must be accepted after the investigations by Pinault (1985; but see also Viti 2002). In Latin only a few examples occur and they are residual (see Cuzzolin 2006).

This type can be found in old, proverbial expressions like *ars longa, uita breuis*,[7] which therefore originally had the meaning 'art is longer than life' (lit. 'art long, life short'), an expression whose formulation corresponds to the translation of the first line of Hippocrates' *Aphorismata* (1,1,1): ἡ τέχνη μακρή, ὁ βίος βραχύς.

It seems to me that this way of looking at our data makes it possible to ascribe this type, too, to the oldest comparison strategies of Indo-European. In this sense sentences like *ars longa, uita breuis* or (32) can be compared with ((33); Skt.).

(32) Plaut. *Most*. 48: *tu fortunatus, ego miser*
'You are luckier than I am'

(33) *Rāmāyaṇa* cited by Viti (2002): *varam mr̥tyur na cākr̥tiḥ*
'death is better than dishonor', '(lit.) preferable death, not dishonor'

It must be noted, however, that this pattern is not original:

> The type of expression with *na* is, technically speaking, an example of comparison expressed through juxtaposition and not through particle. And secondly, this type of comparison (with *na*) is not attested in the Rigveda and has not been found in Old Indic (i.e. pre-Paninian Sanskrit). (Andersen 1980: 227–228)

As we have seen so far, *na* was reanalyzed as a particle only at a late period.

7. In the oldest manuscripts of the Latin version of the *Aphorismata* the adjective *prolixa* occurs instead of *longa*, but this remark does not affect the argumentation expressed here.

It is difficult to evaluate this material, which is unfortunately very scanty from the beginning, but it is likely that this type was no longer felt as comparative even in Plautus's time. What is also remarkable is the fact that this structure also occurs, albeit not frequently, throughout the history of Latin, but exclusively for stylistic effect. A new investigation of the use of pairs of adjectives with antonymic meaning in the history of Latin might reveal that this pattern, newly understood as comparative, survived for a long time.

One aspect, however, must be stressed: this construction is undoubtedly a comparative: the development of patterns where the pivot coincides with, or is related to, the negation is found in numerous Indo-European languages and in some cases it has lasted until modern times (see Laker 2008; for some typological remarks see also Ramat 2002).

From the structural point of view, the interest of this type is the deletion of both the marker of comparison and the pivot, which transparently reveals that this type is represented simply by the juxtaposition of the two elements comparee and standard. The function was thus not taken over by the particle construction: as pointed out in Section 2.3, it shares with the particle comparative the presupposition of the truth of what they compare; and in addition, in the subpattern exemplified by (33) the negation was soon reanalyzed as the pivot. It is a case of transcategorization exactly as was to happen with another pattern, *de* plus ablative, to express the standard with the separative comparative (see Section 3.3.2.3.3).

This pattern ceased to be productive and to be felt as a type of comparative already in the time of Plautus: thereafter, the juxtaposition of two antithetic terms was only one of many stylistic devices with which Latin authors embellished their prose or verse.

3.3.2. Separative comparative

It should be kept in mind that the separative (ablative) comparative and the particle comparative were the two patterns available from the beginning, and they were in complementary distribution. The separative comparative was used when the sentence was negative or the content was expressed by a rhetorical question whose implication was negative (see Bertocchi and Orlandini 1996); the particle comparative was used when the comparee occurred in an oblique case or was expressed through a prepositional phrase or an adverb.

But the two patterns began to be used interchangeably slowly and after the classical period. I have already expressed (Section 2.3) my opinion on the supposed unmarkedness of the particle comparative with respect to the separative comparative.

It has been noted that the separative comparative is more frequent in Early and Classical Latin and only from the post-classical period onward did it start having an alternative in the particle comparative. About the origin and function of the ablative case and its chronology with respect to the particle comparative there are basically two different views.

"Allein die historische Grammatik wird doch fragen müssen, welche Ausdrucksweise die älteste gewesen, und diese Frage wird zu Gunsten des Abl[ativus] comp[arationis] zu entscheiden sein … als eigentlicher Ablativus der Trennung oder des Ausgangspunkt zu fassen ist" (Wölfflin 1889: 447). In a pair of papers still fundamental on the whole issue, Eduard Wölfflin had already envisaged the origin and development of the different strategies of comparison in Latin, assigning – correctly, in my opinion – the role of the older construction to the separative comparative (i.e. the ablative of comparison).

I have already mentioned (3.1.1) Löfstedt's opinion, influenced by Brugmann, that the ablative originally represented an instrumental, but this hypothesis is strongly rejected by Hofmann & Szantyr (1972: 197–198), for whom the original function of the ablative was the separative, as assumed in the traditional view. But there is something else that deserves to be added here. Evidence in favor of this claim would be the fact that the ablative of comparison was frequently accompanied, especially in technical or nonliterary texts, by prepositions like *a*, *ab*, *ex*, and *de* – which eventually, albeit slowly, ended up replacing it in Romance.

But Brugmann's idea cannot be rejected: at the very beginning, both ablative and instrumental might have been in complementary distribution according to their original functions, still detectable in examples like *pluma leuior* or *niue candidior*, where the ablative could indicate 'like, similar to' (see Rosén 1999: 190). When the two cases merged, the ablative took over the functions of the instrumental, and the basic function ascribed to the ablative was separative.

That the separative was the regular pattern for expressing comparison was repeatedly pointed out by the Roman grammarians themselves, and with

different nuances on this topic: “Schon die lateinischen Grammatiker faßten den Ablativ als die Regel, mithin als das Ursprüngliche, die Umschreibung mit *quam*, welche in vielen Fällen notwendig ist, als die Ausnahme” (Wölfflin 1889: 447).

Comparison, however, began to be expressed differently rather early, with ablative or *quam* plus the standard for the comparee, whenever this occurred in an oblique case, either in another case (dative or genitive) or in the ablative but accompanied by prepositions that underlined the possibly original separative function (see Section 3.2.2), such as *ex*, *ab*, or even *de*. However rarely and discontinuously they may be attested, these strategies became increasingly frequent beginning in the first century BCE.

The situation in Latin is also found in the other Italic languages, to the best of our knowledge. In those languages, however, the data are so scanty and comparison is so poorly attested that it is impossible to provide more than a simple mention.

The ablative comparative in Old Latin is well documented in Plautus’s comedies and can serve as a starting point for our investigation.

In Plautus it occurs 75 times, covering five domains (the data are reported by Löfstedt 1956: 307).

- negative sentences (*negative Sätze*), with 33 examples (34);
- rhetorical questions with negative presupposition (*rhetorische Fragen mit negativem Sinne*): 15 examples (35);
- formal expressions with proverbs or metaphorical sentences (*formelhafte Wendungen sprichwörtlicher oder bildlicher Art*): 19 examples (36);
- formal expressions (*formelhafte Wendungen*) such as *opinione melius*: 5 examples (37);
- *plus*, *minus*, etc., in numerical expressions (*numerische Ausdrücken*): 3 examples (38).

(34) Plaut. *Asin.* 118: *non esse seruos peior hoc quisquam potest*
‘there cannot be any servant worse than this one’

(35) Plaut. *Capt.* 540: *quis homo est me hominum miserior?*
‘what man is more miserable among men than I?’

(36) Plaut. *Asin.* 614: *melle dulci dulcior*
‘sweeter than sweet honey’

(37) Plaut. *Bacch.* 349: *plus iusto*
'more than right'

(38) Plaut. *Men.* 446: *plus triginta annis natus sum*
'I am more than thirty years old'

In all these cases, the ablative was the normal choice for centuries, even though later the *quam* pattern also crept slowly into the domains where it was excluded, such as negative constructions. What is remarkable is that set formal expressions like *plus iusto* and *niue candidior* remained more or less intact and occur in literary texts throughout the history of Latin (see Wölfflin 1889), whereas the syntax of numeral expression did not fossilize and was more sensitive to developments occurring in the actual language, as seen in (39).

(39) = (30) *Itin. Eger.* 6,1: *plus quam quingentos passus de mari per eremum ambuletur*
'(so that) one walks more than five hundred steps from the sea through the hermitage'

3.3.2.1. Genitive. The occurrence of the standard in the genitive case raises at least two thorny issues: first, whether the use of the genitive is to be exclusively attributed to Greek influence; second, what relevance the genitive case has for the diachronic and typological development of Latin. The entire issue is complicated and deserves a detailed treatment.

Since, as is well known, Ancient Greek expresses the standard in the genitive case, many scholars, such as Wölfflin and Löfstedt, have supported the idea, widespread around the turn of the twentieth century, that the Latin examples with the standard in the genitive must have been influenced by Greek (for a thorough discussion on Graecisms in Latin see Calboli, this work, vol. 1). As a matter of fact, however, this construction apparently developed from sentences like (40) (1st c. CE), as explicitly pointed out by Hofmann & Szantyr (1972: 66): "Der Typus *maiora annorum triginta* enthält einen Gen[etivus] qua[litatis] mit erspartem *quam*, wie schon das danebenstehende *minores trimae* bei Varro *rust* 2,7,1 lehrt".

(40) Varro *rust.* 2,7,1: *uidemus ne sint minores trimae, maiores decem annorum*
'let's try to avoid that the younger ones be less than three years nor the older ones more than ten years old'

At the origin of this construction, therefore, the genitive would have had the function of qualifying the comparative form. The meaning of the genitive, however, possibly even triggered by the comparative form, resulted in a meaning very close to that of the standard, thus providing the model for other examples where the parameter is represented by adjectives of measure like *altus* 'high', *latus* 'large', *longus* 'long' (41), even though it is difficult to accept the idea that (40) could serve as the immediate antecedent of examples like (42)–(43) or even of (44), where *grauius* (but the reading *grauis* would render this example useless) is functionally very close to the superlative.

(41) Plin. *nat.* 36,7: (*L. Crassum*) *qui primus peregrini marmoris columnas habuit in eodem Palatio, Hymettias tamen nec plures sex aut longiores duodenum pedum*
'L. Crassus having been the first to install, also on the Palatine, columns of foreign marble, columns which were after all merely of Hymettus marble and not more than six in number or more than 12 feet each in length'

(42) Plin. *nat.* 7,117: *omnium triumphorum laurea adepte maiorem*
'winner of a greater laurel wreath than that of any triumph'

(43) Apul. *met.* 8,27,3: *prorsus quasi deum praesentia soleant homines non sui fieri meliores, sed debiles effici uel aegroti*
'as if, indeed, the gods' presence was most supposed to make them better than themselves, but rather weak or sick'

(44) Apul. *Plat.* 2,17: *grauius* (v. l. *grauis*) *est acerbissimorum malorum carere medicina*
'the worst of all nastiest evils is to lack the right medicine'

Whereas in authors such as Apuleius or even Pliny it is reasonable to invoke the influence of Greek on Latin, this is conceivable but less likely in the case of Varro, from whose example the others could have originated. Even in

this case the distinction must be made between complete Graecisms and partial Graecisms (see Calboli, this work, vol. 1). The origin of the comparative expressed through the genitive is to be traced within Latin, where it developed independent of Greek. In later stages of the language, however, when the influence of Greek became pervasive, it possibly helped the diffusion of such construction.

However, another interpretation of (40) is not only possible, but probably more correct: the genitive is in fact a *genitivus qualitatis*, which is regularly employed to express age or physical characteristics. Such an interpretation is also decisively supported by the parallelism between the genitive *decem annorum* and the predicative adjective *trimae*, which cannot be interpreted as equivalent to any standard of a comparative pattern. Clearly, the genitive case occurring in this construction could easily be reanalyzed as the standard of comparison.

There are also examples where the sentence is ambiguous in the sense that, whatever its interpretation, the genitive is functionally very close to the standard (cf. (45)).

(45) Flor. *epit*. 2,13,45: *numquam imminentis ruinae manifestiora prodigia*
'never were the portents of impending disaster more clearly manifest'

Obviously, the translation provided is the correct one. However, in a case like this the genitive could be interpreted as the standard of comparison without changing the content of the sentence: there is no crucial difference between the translation given and 'never were the portents more clearly manifest than was the impending disaster'.

All this is simply intended to point out that the genitive was open to non-unambiguous interpretations and could develop the function of standard on its own, the influence of Greek only favoring an intra-Latin process that had already begun.

An example for which an influence of Greek on Latin can be supposed does occur in the *Expositio totius mundi et gentium*, a booklet probably written in the fourth century CE but translated from Greek at the beginning of the sixth, whose author probably was a Syrian. This book is full of complete and partial Graecisms (cf. Calboli, this work, vol. 1), a fairly common

phenomenon at that period, and therefore it is also possible that (46) is a Graecism.

(46) *Expos. mundi* 24: *nulla enim forte ciuitas orientis est eius spissior*
'therefore, perhaps, there is no eastern city more densely populated than this one'

However, not even in this case can one be certain beyond any doubt that the phenomenon is due to Greek influence. As is well known, there are several examples with the standard in the genitive, in texts that cannot show Greek influence: some in inscriptions exhibiting traces of Vulgar Latin and others in the *Itala* (see Calboli, this work, vol. 1). The standard in the genitive, at least in some instances, can be traced back to a purely Latin tradition, which eventually was reinforced, but not triggered, by the massive influence of Greek, as already pointed out by Konjetzny (1908: 314): "Genetivus comparativus graeco more pro 'quam' vel ablativo positus est: 4912 (aet. Tiber. vel Claud.) 1 sq.: *Caelia C. L. quae fuit caeli melior*. $29580^{\dagger ?}$, 2sqq.: *coniugi … cuius praeclarius nihil fuisse certus* (sc. *sum*). 21279^{d}, b 4 sqq.: *vixit annis plus minus annoru(m) ciquaginta mesibus tribus diebus viginti*".

The situation is different in Christian Latin: in the *Itala*, for instance, the genitive occurs 16 times with *maior*, *minor*, *plus*, or *peior* but only 3 times in the *Vulgate*: (47), (48), and *Iob* 13,2 (in which the same phrase *inferior uestri* occurs).

(47) Vet. Lat. *gen*. 26,16: *ut ipse Abimelech diceret ad Isaac recede a nobis quoniam potentior nostri factus es ualde*
'and Abimelech said to Isaac, Go from us; for thou art much mightier than we'

(48) Vet. Lat. *Iob* 12,3: *et mihi est cor sicut et uobis nec inferior uestri sum*
'but I have understanding as well as you; I am not inferior to you'

Furthermore, another phenomenon affecting syntax has to be taken into account that allows for a more coherent picture of the comparative expressed through cases. As repeatedly observed in the literature (Hofmann & Szantyr 1972: 71), the genitive began to be replaced by prepositional phrases already in Late Latin: *ab* plus ablative and, in particular, *de* plus ablative, as in *homo*

de ciuitate (*Vitae patr*. 6,3,15) instead of the regular *homo ciuitatis*. This usage spread rapidly (Löfstedt 1956: 146–147; see also Molinelli 1996).

It must be pointed out, however, that in some examples of Late Latin quoted in the literature it is difficult to draw a line between the comparative and the superlative, many contexts allowing for both interpretations (see Hofmann & Szantyr 1972: 168–170).

3.3.2.2. Dative. A construction parallel to the separative is the allative comparative, in which the standard is expressed in the dative case (cf. (10) above). Although this construction is not frequently attested in Latin, it is documented from the period of Classical Latin onward, through the Late Latin of Gregory of Tours.

The first known example is (49) (1st c. BCE), but this construction with the same adjective occasionally occurs in other, later authors; in (50) it is interesting that the dative *nulli* occurs in the ablative case as *nullo* in Plin. *hist*. 3,16, which was the model Solinus tried to imitate.

(49) Sall. *hist.* 2,37: *uir grauis et nulla arte cuiquam inferior*
‘a serious man and inferior to nobody in any skill’

(50) Sol. 2,25: *Padus nulli amnium claritate inferior*
‘the Po river, inferior to no other as for its fame’

But the dative still occurs in Gregory of Tours (51).

(51) Greg. Tur. *Franc.* 2,12: *nam noueris, si in transmarinis partibus aliquem cognouissem utiliorem tibi, expetissem utique cohabitationem eius*
‘you should know indeed that, if I knew somebody beyond the sea more useful than you, I would have tried to live in any case with him’

Wölfflin (1889: 466), trying to account for the unusual case of the standard in (49)–(50)–(51), offers two reasons:

a. The semantics of *inferior* was very close to that of adjectives like *impar* ‘unequal’ or *cedens* ‘unresisting’ that regularly take the dative case;
b. The fact that a comparative form such as *inferior* belongs to the irregular forms (1889: 467: “zu den unregelmässigen gehört”).

Wölfflin's assumptions seem to be supported by (52). In this example, the dative is undoubtedly motivated by the argument structure of *praestare*, which is regularly attested beginning with the oldest documents of Latin. This suggests that the choice of case for the standard can be constrained by the argument structure of the parameter, when it possesses one, as for either verbs or adjectives; consequently, the dative cannot be considered a regular means of expression of the standard in a comparative (as is not unexpected: on this point see Ricca, this work, vol. 2: 136).

(52) Greg. Tur. *Franc.* 4,11: *nullum sibi putans in sanctitate haberi praestantiorem*
'thinking that nobody was considered more solid in holiness than himself'

Wölfflin's remarks were accepted by Kühner & Stegmann (1914, 2: 469) and taken as self-evident in all the later handbooks. But in fact they are at least questionable for some examples.

However, (52) is interesting because it shows that the semantic range of the adjectives with the dative standard had broadened with respect to earlier examples, where the dative only occurred with spatial adjectives. Example (52) shows that the dative could also occur with evaluative adjectives, though it is not easy to account for this development, which apparently was very limited and never productive in the history of Latin.

A phrase like *tibi utiliorem* could in principle also be interpreted as 'more useful to you', *tibi* being interpreted in this case as a *dativus commodi*, rather than 'more useful than you', as in (53). This renders it even more difficult to account for this construction with an adjective like *utilis* than with other adjectives.

(53) Greg. Tur. *Franc*. 2,23: *conspicio eminus inter eos beatum adstare Sidonium, et cum presbitero illo tibi carissimo*
'I see in the distance among them the blessed Sidonius, together with that beloved priest of yours'

It is worth mentioning that *inferior* plus dative or *ad* with accusative in Late Latin, as observed also by Hofmann & Szantyr (1972: 113–114), is continued in the Romance languages in which *inferior* survives: It. *inferiore a*, Fr. *inférieur à*.

3.3.2.3. Prepositional phrases. Although neglected or even ignored in some handbooks, in the history of Latin there are numerous prepositional phrases for expressing the standard of the comparative. These prepositional phrases occur from the classical to the late period, when their number tends to increase. It must be stressed that they occur infrequently, and not systematically or consistently, but at the same time they are not motivated by purely stylistic or literary reasons. In addition, the fact that they are rare does not mean that they belonged to low registers: in fact they occur in authors who usually avoid low varieties of language such as Cicero or Horace as well as in authors of technical handbooks who paid little if any attention to style.

All the prepositions that introduce the standard originally denoted a spatial relation, in varying degrees of compexity. The cognitive bases for such an expression are thus rooted in the idea that comparison is conceived as a spatial operation – the expression of the cognitive distance of the comparee from the standard, as already mentioned in Section 2.3.

Another distinction needs to be drawn within the set of the prepositions involved: some, like *ante* 'before, in front of' or *praeter* 'farther, beyond', clearly show something of their original meaning, implicitly comparative (*ante*) or explicitly (*praeter*, where the comparative function of the suffix *-ter* is still recognizable).

Even considering their fate over the history of Latin, there is a basic difference: whereas the vast majority disappeared and were replaced by new prepositions, a few instead played an active role in the development of the eventual comparative strategies of Romance, given that they were involved in the replacement of synthetic morphological cases by analytical constructions, namely prepositional phrases. The only preposition that survived in the comparative system of Romance was *de* 'from', which also underwent a relevant typological reanalysis (see Section 3.3.2.3.3).

A short survey of these prepositions follows. Given that these prepositions mainly signal 'movement from', rarely 'before', 'above', or 'between', but never 'to', they are treated individually rather than grouped according to their cognitive basis.

3.3.2.3.1. *A, ab.* The prepositional phrase that earliest replaced the comparative ablative was *a*, *ab* plus ablative. As Wölfflin observed: "Sie [the prepositional phrase – PC] ist dem Spätlatein eigen, aber doch so alt und

allgemein, daß Grammatiker vor derselben warnen" (1889: 448). However, whereas the correct form is quoted beside the wrong form in the usual prescriptive way by Cledonius (5th c. CE?, *gramm.* V,12,5): *uelocior equo equus, non ab equo*, an interesting remark appears in the roughly contemporaneous Servius, providing some information on its relative chronology (*gramm.* IV,433): *quando dico doctior illo et doctior ab illo, re uera eadem inuenitur elocutio*. What is remarkable is that Servius finds no basic difference between the two constructions and no fault in the latter, suggesting that it was current at that time with no (socio)linguistic stigma. As Wölfflin wrote: "denn sie [the construktion with *ab*] hatte sich mittlerweile eingebürgert" (1889: 448).

Wölfflin also expressed the then-current idea that this expression was of Semitic origin: "Daß die Konstruktion mit 'ab' als Hebraismus oder Semitismus aufzufassen sei, unterliegt heute keinem Zweifel mehr" (1889: 448). But Löfstedt convincingly defends the Latin origin of this pattern (1954: 329: "Der Ursprung dieser Konstruktion liegt … in dem alten und *echt lateinischen* Gebrauch von *ab* zur Angabe des Ausgangspunkt" [emphasis added]). In fact, today the common opinion is different: "The comparative construction with *a*, *ab* has a properly Semitic origin when used with the positive", and it only appears in Bible translations (Rubio, this work, vol. 1: 210).

As a matter of fact, the standard expressed by *a*, *ab* plus ablative occurs in authors such as Ovid and Pliny the Elder, for whom the influence of Hebrew or of any other Semitic language has to be excluded:

(54) Ov. *epist.* 16,97–98: *in orbe / nec Priamo est a te dignior ulla nurus*
'and Priam has no daughter-in-law worthier than you in the world'

(55) Plin. *nat.* 18,126: *si iustus ordo fiat, a frumento protinus aut certe faba dicendis, quando alius usus praestantior ab*[8] *his non est*
'if we are to follow the proper order, the turnip should be mentioned directly after corn or at all events after the bean, since its utility surpasses that of any other plant'

This type could probably be described as a "subtype" of the ablative comparative. It started spreading in Late Latin, especially in Christian authors. The fact that the standard introduced by *a*, *ab* is particularly common in

8. The presence of *ab* in this passage is guaranteed by the manuscripts beyond any doubt.

some African authors like Arnobius or Cyprian was taken as a typical "ursprünglich afrikanische … Ausdrucksweise" (Brandt 1892: 596), making it possible to identify an author such as Lactantius as African. This construction also occurs in a non-African author such as Gregory of Tours (56).

(56) Greg. Tur. *Franc*. 5,44: *sapientioribus a te haec pandam, ut mihi consentiant*
'I will explain all this to people wiser than you, so that they agree with me'

In addition, in some cases, as already seen in Section 3.3.2.2, with the standard expressed in other anomalous ways, the particular encoding of the standard can be required by the argument structure of the adjective (57). Brandt correctly observes that *recens a* is attested already in Cicero (e.g., *nat. deor*. 3,11: *Homerus, qui recens ab illorum aetate fuit*) and explains why the standard is introduced by *a*: "Hier mochte wohl auch die Verbindung *recens a* (Cicero) … mitgewirkt haben" (1892: 596). *Recens a* is attested in several authors besides Cicero: Varro *rust*. 2,8,2; Liv. 21,16,5; Verg. *Aen*. 6,450; to mention but a few.

(57) Lact. *inst*. 1,13,18: *Orpheus, qui a temporibus eius fuit recentior*
'Orpheus, who lived in more recent times than his (Saturn's)'

The fact that the standard expressed by *a*, *ab* plus ablative occurs in authors such as Ovid and Pliny the Elder means that this choice was felt to belong to rather high registers and does not reflect any colloquial feature.

3.3.2.3.2. *E, ex*. The observations concerning *a*, *ab* apply to *e*, *ex* as well, which was however less widespread and is frequently, given its primary meaning, associated with contexts where the nuance 'standing out from' is evident. It frequently occurs with adjectives of length or measure (58).

(58) Plin. *nat*. 2,34: *Saturni autem sidus gelidae ac rigentis esse naturae, multumque ex eo inferiorem Iouis circulum et ideo motu celeriore duodenis circumagi annis*
'Saturn is of a cold and frozen nature. The orbit of Jupiter is much below it and therefore revolves much faster, completing one rotation every twelve years'

Even in this case it is relevant to note that the standard is expressed with the prepositional phrase that usually occurs with the superlative. In (59) and (60) the comparison is between a person and a group of people, and this makes it easier to associate the comparative with the superlative. The standard introduced by *e*, *ex* is attested from the first century CE down to Late Latin (the latest example in the *ThLL* is Cassiod. *var*. 8,17,3): it occurs already in Cicero *de orat*. 2,357: *acerrimum autem ex omnibus nostris sensibus esse sensum uidendi* 'but the sharpest of all our senses is the sense of the sight' (described by Kühner & Stegmann (1914, 2: 506) as: "von dem Ganzen in Beziehung auf seine Teile".

(59) Liv. 21,53,9: *dum tiro hostium miles esset, dum meliorem ex ducibus inutilem faceret, dum Gallorum animi uigerent*
'while the soldiers of the enemy still lacked experience, while the abler of their generals was incapacitated by his wound, while the courage of the Gauls was up'

(60) Pelag. *in Rom*. 3,9: *nos ex Iudaeiis nullam unde maiores simus inuenio causam*
'I see no reason why we might be greater than the Jews'

This tendency also involved an equivalent to the comparative of minority (61).

(61) Ov. *epist*. 12,148–150: *sed tamquam scirem, mens mea tristis erat / cum minor e pueris iussus studioque uidendi / constitit ad geminae limina prima foris*
'but my heart was heavy, as if I really knew, when the younger of the children, at my bidding, and eager for the sight, went and stood at the outer threshold of the double door'

3.3.2.3.3. *De*. The prepositional phrase *de* plus ablative that was to become the regular pattern for the standard in some varieties of Romance, including Italian, began to appear rather late in the post-classical period. Some handbooks (Kühner & Stegmann 1914, 2: 468, for instance), offer as the earliest, albeit doubtful, example (62) (this translation interprets the phrase not as a standard but as a topic). It is difficult to correctly evaluate (62); in any

case, it is ambiguous. *De* certainly introduces the standard of comparison in (63)–(64)–(65)–(66), dating from the second to the seventh century.

(62) *Bell. Hisp.* 7,5: *nam de leui armatura et equitatu longe et uirtute et numero nostri erant superiores*
‘as for light-armed units, our troops were in fact superior both in quality and quantity’ (Way 1955)

(63) Tert. *resurr.* 6,8: *datum est esse aliquid origine generosius et de mutatione felicius … aurum longe alia materia, splendidior atque nobilior de obsoletiore matrice*
‘it has been said that a thing can be more noble than its origin, and richer by reason of change: gold is another material by far, more resplendent and noble by contrast with its rather dull origin’

(64) Hyg.:[9] *si plus de XXX pedibus patuerit*
‘if it extends more than 30 feet’

(65) Comm. *instr.* 1,13,2: *uos de istis date priorem*
‘you give the first of these’

(66) Fredeg. *Gesta Franc.*:[10] *senior aetate erat de Bruchilde*
‘by age he was older than Bruchild’

This fact raises the important typological issue about the type which was to become the most common in the Romance languages:

> Man kann sie [the preposition *de*] nicht als Auflösung des partitives Genetivs betrachten, weil sie sonst nur mit Pluralen oder Kollektivbegriffen verbunden sein mußte, sondern sie ist der Erbe und Nachfolger von *ab*, welches, mit *ad* zusammenfallend, seine ursprüngliche Funktion einbüßte. (Wölfflin 1892: 131)

It is undeniable, however, that the progressive replacement of the genitive by *de* played a role more important than Wölfflin thought and was not tied only to plural or mass nouns (*Kollektivbegriffe*; see Molinelli 1996).

Some rather late texts show that the standard with *de* plus ablative also spread to the comparative of minority (see Section 3.4).

9. The text is from Hyginus Gromaticus, quoted by Wölfflin 1892: 131.
10. The text is from Fredegarius, quoted by Wölfflin 1892: 131.

3.3.2.3.4. The prepositions *ante*, *praeter*, *prae*, and *super*. The preposition *ante* 'before, in front of', setting a boundary between what precedes and what follows, implicitly has an evaluative sense from which a comparative meaning could develop. Alongside the many examples of *ante* simply meaning 'before', but with a comparative nuance as in (67), which is rather close to the surpass comparative, there are several examples where *ante* introduces the standard after a true comparative. See, for instance, (68). Beside other examples in poetry (Val. Fl. 7,263: *ante alios … pulchrior omnis*; Sil. 11,7: *saeuior ante alios Samnis*), there are also some in prose, down to the time of Ammianus Marcellinus (69)–(70).

(67) Sall. *Catil*. 53,3: *facundia Graecos, gloria belli Gallos ante Romanos fuisse*
'as for eloquence, Greeks were before Romans, so for glory in war, Gauls'

(68) Verg. *Aen*. 1,347: *Pygmalion, scelere ante alios immanior omnis*
'Pygmalion, monstrous in crime before all others'

(69) Liv. 5,42,5: *tanto ante alios miserandi magis, qui unquam obsessi sunt quod interclusi a patria obsidebantur*
'so much more wretched was their plight than that of all others who have ever been beleaguered, that they were cut off from their native city'

(70) Amm. 23,6,25: *perfluunt autem has easdem terras potiores ante alios amnes*
'now the most important rivers that flow through those lands, besides the others that I have mentioned'

Torrego, not without reason, analyzes the comparative pattern with *ante*, especially if universal quantifiers such as *omnis* and *ceteri* are involved, as forms of superlatives rather than comparatives (2002: 270).

Not infrequent was the the employment of the preposition *prae*, which occurs five times in Apuleius' *The Golden Ass*, about whom Callebat (1968: 209) observes: "Bien déjà connu des auteurs archaïques … cet emploi de *prae* devient surtout fréquent à partir du IIe siècle, particulièrement dans les expressions: *prae ceteris*, *prae illis*", as in (71).

(71) Apul. *met.* 8,4,3: *prae ceteris feris mitior cerua*
'the doe is meeker than the other beasts'

It is easy to see, however, that in this case the preposition does not simply introduce the standard but rather conveys a slightly different meaning: 'with respect to, beside', thus adding a topicalizing function to the standard. As Torrego points out: "*Prae* neither intensifies the meaning of the adjective it accompanies, nor represents the standard of comparison; it rather confirms the evaluation contained in the adjective (or ... in the verb)"[11] (2002: 272) [my translation].

According to Fugier, the meaning of *prae* would be

> 'à l'avancée, à la pointe' : l'enfant savant *prae ceteris* occupe la position extrème parmi les *pueri docti*. Cette valeur de *prae* explique d'ailleurs que le simple positif *doctus prae ceteris* concurrence le "superlatif" *doctissimus prae ceteris*. Ce dernier syntagme, en effet, où *-issimus* et *prae* indiquent tous deux la situation "en pointe", pèche par redondance. (1972 : 282)

Another preposition that introduces the standard is *inter*, originally a comparative form of *in* (Leumann 1977: 316), which, like some other prepositions, introduces the standard after the comparative as well as after the superlative: in fact it is not easy to draw a reliable line between the two interpretations. This ambiguity derives from an inherent semantic feature of *inter*, which always presupposes more than one entity as the standard. And even though two distinct entities are compared, the standard, a set including more than one element, inherently does not exclude a superlative interpretation. It occurs only in prose (72).

(72) Liv. 33,10,1: *Philippus cum paucis peditum equitumque primo tumulum altiorem inter ceteros cepit*
'Philip with a few troopers and infantrymen at first held a hill higher the rest'

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11. "*Prae* no intensifica, el valor del adjetivo al que acompaña, ni representa el estándar de la comparación, sino que proporciona un punto de contraste que hace verdadera la evaluación contenida en el adjetivo (o ... en el verbo)".

The expression *inter ceteros* for the standard occurs in other later authors, including some Christians (73), a particularly interesting example because the difference between the semantic nuances conveyed by the two prepositions can be fully perceived: *inter* stresses the fact that, in terms of age, Joseph was the younger *inter pares*, *ab* stresses the distance between him and his brothers, the same as in the previous comparison;[12] and again in (74).

(73) Tert. *nat.* 2,8,10: (*Ioseph*) *iunior inter ceteros fratres, sed excelsior ingenio ab isdem fratribus*
‘Joseph was the younger among his brothers, but by ingenuity the highest of his very brothers’

(74) Aug. *civ.* 8,2,1–2: *quantum enim attinet ad literas Graecas, quae lingua inter ceteras gentium clarior habetur*
‘in connection with the literature of the Greeks, whose language is held in higher esteem than that of any other people’

Inter introduces other standards without *ceteros* or *ceteras*; see, for instance, (75).

(75) Aug. *civ.* 1,30,5: *eaque ipsa libido dominandi, quae inter alia uitia generis humani meracior inerat uniuerso populo Romano*
‘finally, that passion for rule which among the the other vices of mankind was found more concentrated in the Roman people one and all’

Inter also introduces the standard with the superlative: in the *ThLL* (*laxius* is the comment there) three examples are listed, beginning with (76).

(76) Tac. *hist.* 2,87,1: *calonum numerus amplior, procacissimis etiam inter seruos lixarum ingeniis*
‘still greater was the number of camp-followers, and even among the slaves the soldiers’ servants were the most unruly’

12. This view differs slightly from Fugier’s (1972: 282): “*Inter* = à l’intérieur en séparant”: *puer inter omnes doctissimus* = “un enfant que sa *doctrina* exceptionelle place à part dans l’ensemble des *pueri docti*”.

The second example is Tac. *hist.* 5,17,2: *illum diem aut gloriosissimum inter maiores aut ignominiosum apud posteros fore* 'this day will crown the glories of our sires or be counted the deepest disgrace by our descendants!'), and the third is from Vulg. *Ezech.* 29,15: *inter cetera regna erit humillima.*

There are some examples where the standard is introduced by *praeter*, such as (77).

(77) Hor. *carm.* 2,6,13–14: *ille terrarum mihi praeter omnes / angulus ridet*
'for me that corner of the world smiles more invitingly than all others'

Other examples are quoted in the *ThLL* s.v., with the comment "accedit ad comp. et superl.: Suet. *Galba* 9,1: *multo … praeter ceteras altiorem … cruces*; Amm. 22,12,5: *ille tamen ut maioris praeter ceteros spiritus…*".

According to Torrego (2002: 271), all examples where the standard of the comparative is encoded by *praeter* are actually forms of the superlative.

But the situation in the late texts is surely messy: in Gregory of Tours *inferior* occurs with the standard in the dative, as seen in Section 3.3.2.2; but there is also an example where *inferior* apparently occurs with the standard introduced by the preposition *super* (78).

(78) Greg. Tur. *Franc.* 5,49: *non potest persona inferior super sacerdotem credi*
'a humble person cannot be trusted more than a priest'

In this case, of course, it is difficult to decide, but the likelier analysis is that *super sacerdotem* does not depend on *inferior*, which is to be interpreted as an absolute comparative, but rather as a complement of the so-called periphery depending on *credi*.

To sum up, none of these prepositions became established as regular expressions of the standard, because their primary function was to add to the comparative meaning further semantic nuances. It is very likely that they could be employed in this function any time an author needed some stylistic by-effect but if they ever become grammaticalized it was not until a late stage. In any case, none of them survived in Romance as pivot in the comparative construction.

3.3.3. Particle comparative

As mentioned in Section 3.3.2, the particle comparative represents the unmarked way of encoding the standard in the comparative – it can also be thought of as the "default case" for expressing it – even though its relationship with the comparative encoded by the ablative should be more fully reassessed.

The conditions under which the ablative could not be used and therefore the particle comparative introduced by *quam* was obligatory are well known; they hold throughout the history of Latin: first, when the comparee was in an oblique case the standard had to be expressed in the same case as the comparee; second, when the standard was expressed by a sentence or any other part of speech, and almost regularly after adverbs such as *potius* and *prius*, and to a certain extent, also *magis*.

But the gradual penetration of this pattern into environments in which the separative ablative was the most likely choice is not simply random, but is due to its greater flexibility, including its analytical and therefore transparent structure, and it is definitely connected to the fact that some morphological cases had been replaced by prepositional phrases in which the preposition, instead of being taken as the analytic marker of the case, was rather taken as functionally equivalent to the pivot. These two processes – the extension of the contexts in which the particle comparative was used, and the reanalysis of prepositions as pivots – are to be ascribed to the same tendency of the language, even though they occur at different times.

The common opinion is supported by Hofmann & Szantyr (1972: 109): "Sekundär ist die Ausdrucksweise mit *quam*; dieser Typus (*hic doctior est quam ille*) ist Kontamination von *hic est tam doctus quam ille* und *hic est doctior illo*". The contamination of the two constructions is already attested in Plautus, for instance (79).

(79) Plaut. *Poen*. 824–825: *neque periurior neque peior alter usquam est gentium / quam erus meus est neque tam luteus neque tam caeno conlitus*
'there is no one worse as a liar and a man anywhere in the world than my master, nor one so foul and covered with dirt'

This explanation, however, is probably too simplistic, for at least two reasons: first, (79) does not, by itself, seem to support the origin of the pattern as a mixture of two other patterns logically preceding it, given the additional fact that the comparison of equality is syntactically rather independent of the comparative; second, and more important, since even in Greek the standard can be expressed by a particle (ἤ functionally corresponding to Lat. *quam*) and in other Indo-European languages like Germanic, where the particle *than* developed, it is more reasonable to think that this pattern should not be ascribed to Proto-Indo-European and could develop independently and along a different path.

It is difficult, however, to envisage the true origin of this pattern; there is room only for speculation. The first attestation occurs in Ennius (80).

(80) = (22) Enn. *ann*. 6,4,176: *bellipotentes sunt magis quam sapientipotentes*
'they are more powerful in war than in wisdom'

In the oldest poetic texts *quam* also occurs as *quamde*, as mentioned also by Festus 366: ***quamde** pro **quam** usos esse antiquos cum multi ueteres testimonio sunt tum Ennius*. Whether there was a functional difference between *quam* and *quamde*, which is formally identical with Umbr. *pane* 'than', is almost impossible to ascertain, given that *quamde* is attested very rarely and only in archaic poetry like Ennius or with evident archaizing intent by Lucretius (81).

(81) Lucr. 1,639–640: *clarus ob obscuram linguam magis inter inanis / quamde grauis inter Graios qui uera requirunt*
'because of his obscure language more famous among the fools than actually among the wise Greeks who look for the truth'

Even though less frequently attested than the ablative, the particle construction is well attested already in the first literary documents of Latin.

A particular development of this construction, which spread from post-Classical Latin onward and is remarkably frequent in Livy, is the use of *quam pro* instead of *quam* alone. In this construction the standard is introduced by *quam* but, contrary to the standard occurring in the case of the comparee, it occurs in the ablative case required by *pro*. In Livy it is especially frequent:

32 occurrences, 10 of them in the phrase *quam pro numero* ((82) vs. (83)). This construction also occurs with the comparative of minority at least once in Livy (84).

(82) Liv. 25,16,22: *maior* ***quam pro*** *numero hominum editur pugna*
'the battle was out of all proportion to the number of men engaged'

(83) Liv. 41,2,10: *proelium atrocius* ***quam pro*** *paucitate resistentum fuit*
'a battle began, fiercer than one would expect considering the small number of defenders'

(84) Liv. 39,15,6: *quidquid dixero,* ***minus quam pro*** *atrocitate et magnitudine rei dictum scitote esse*
'whatever I shall have said, be sure that my words are less relevant than the dreadfulness and gravity of the situation'

It has been observed that this construction is especially meant to stress a disproportion, which in fact is correct. But it mainly performs another function: it topicalizes the element introduced by *pro*. Therefore this construction could be paraphrased in (82) as 'as for the number of men engaged, the battle was very big' or the like. In other words, by topicalizing the standard, the pattern is made less comparative in nature.

3.3.4. Surpass comparative

Although unrecognized for decades, the surpass comparative must be considered a proper comparative construction, as demonstrated by Asensio de la Cruz (2002). In fact, since in this pattern the three elements are present that characterize a comparative pattern, the comparee, the parameter, and the standard, and given the additional element that this pattern is very common among the world's languages to express comparison, "All these considerations … invite us to think that the exceed comparative is a real comparative construction" (Asensio de la Cruz 2002: 15–16 [my translation]).[13] However, from a structural point of view this type can be complex and characterized by numerous subtypes, where the different basic elements of the pattern can be

13. "Todas estas consideraciones … invitan a pensar que el comparativo del exceso es una verdadera construcción comparativa".

omitted or expressed through allotropy: this is evident not only in Latin, but also in languages where this is the most common type of comparison, such as Chinese (Ansaldo 2010).

This type is also found in some of the oldest Indo-European languages, such as Vedic (85) and Homeric Greek (86).

(85) RV 1,33,10: *ná māyā́bhir dhanadā́m paryabhūvan*
'they have not surpassed the wealth-bestowing (Indra) in trickery'

(86) *Il.* 17,171: ὢ πόποι ἦ τ' ἐφάμην σὲ περὶ φρένας ἔμμεναι ἄλλων
'I thought you had a better mind than any other man'

This construction is also rather common in post-Homeric Greek, and several verbs are used in this pattern, just as in Latin: beside the most common ὑπερβάλλειν 'surpass, exceed' (Xenophon, *Hellenica* 5,3,21) is another, περιελαύνειν 'go over' (Aristophanes *Equites* 887), that occurs less frequently.

Based partly on examples such as (85)–(86), Andersen (1980: 230) proposed to reconstruct for Proto-Indo-European the following pattern:

– Preverb ('over', 'before')-Verb, Standard (in accusative), Instrumental

To the pattern envisaged by Andersen must be added a highly unusual feature, the completely general meaning of the verbs used in the compounds in this construction, namely **cellere* ("le verbe simple n'existe pas", Ernout and Meillet 1984 s.v.), *cedere*, *ire*, *stare*; *superare* belongs in this group but is unique in that the comparative meaning resides not in the prefix but in the lexical morpheme itself. These predicates fall into two subgroups, according to the morphological case of the standard: accusative like *superare* or dative like *praestare*.

The idea that in Latin, possibly going back to Proto-Indo-European (see Puhvel 1973; Andersen 1980: 230–232), a sentence like (87) is an instantiation of a pattern with comparative function – i.e., that it is a Latin means of expression of comparison alongside the separative and particle comparatives – though fully accepted, was only recently introduced. This is why school handbooks and grammars usually do not list this construction.

(87) Caes. *civ.* 3,36,1: *nam plerumque in nouitate rem fama antecedit*
'for in strange events, rumor generally goes before'

This construction already occurs in the comedies of Plautus (88), and Stassen's remark that "it is clear that the option for an Exceed Comparative is firmly tied up with SVO word order, at least as far as the primary instances of this category are concerned" (1985: 159) should probably be revised. This construction also occurs in languages such as Vedic or Early Latin for which the word order SOV is almost certain. But this point deserves further investigation.

(88) Plaut. *Bacch*. 973: *sed Priamus hic multo illi praestat*
'but this Priam is far superior to that one'

The main feature of this pattern is the absence of one of the elements that seem to be necessary for a comparative pattern, the parameter. In fact, deeper analysis of this pattern reveals that its structure is more complex than the other comparative patterns.

This construction ranges from a pattern with pure locational meaning to one that conveys a comparative meaning: in this case, the verb itself can be paraphrased as containing the parameter in itself.

Whether or not the parameter is expressed (but the parameter, represented by the ablative, is argumental and therefore it must be present: Asensio de la Cruz 2002: 25–26), this pattern always presupposes that the feature of the parameter is common to both the comparee and the standard. The parameter can also be expressed simply by the ablative neuter *hōc* with an adverbial meaning, as in (89), and it also well attested without standard, as in (90).

(89) Plaut. *Truc*. 372: *hoc tuis fortunis, Iuppiter, praestant meae*
'this, O Jupiter, is where thy lot falls short of mine'

(90) Cic. *Brut*. 28: *post hanc aetatem aliquot annis, ut ex Atticis monumentis potest perspici, Themistocles fuit, quem constat cum prudentia tum etiam eloquentia praestitisse*
'some years after these, as may be collected from the Attic annals, came Themistocles, who is said to have been as much distinguished by his eloquence as by his political abilities'

However, (90) deserves some discussion, because the fact that no standard is explicitly expressed does not mean that no standard is involved in the logical structure of the sentence. The standard is implicitly represented by a

quantifier, regardless of whether it is universal or existential; the difference in interpretation is minimal and implies considerations that go beyond the aim of this chapter (on quantifiers and quantifications see Bertocchi, Maraldi, and Orlandini, this work, vol. 3).

It is easy to see that, whenever the standard is represented by a universal quantifier such as *all* or *all others*, the meaning of the sentence is very close to the function of the superlative rather than the comparative. It is probably not incorrect to claim that, when the pattern of the surpass comparative does not include the standard, thus allowing for a universal interpretation, this pattern is in fact to be interpreted as a superlative.

Regarding the set of surpass verbs, the description supplied by handbooks leaves some interesting details out of the picture. As noted earlier, these predicates are of two kinds, the dative type (*praestare*) and the accusative type (*superare*).

However, the standard occasionally occurs in other cases. With *praestare*, the standard is attested with *inter* plus accusative (Plaut. *Poen*. 1193: *inter alias puellas*); with *ex* in Sil. 13,195 (in Cic. *rep*. 1,69 *ex* is a conjectural emendation). In all these examples the meaning conveyed by *ex* and *inter* is still clearly partitive, rather than a full grammaticalization of the standard.

Particularly interesting for the development of the comparative in Late Latin and Romance is the case where the standard was expressed by *de*, a construction whose relevance to the establishment of *de* as pivot in the comparative pattern has probably been underestimated.

De introduces the standard in Cicero (91) and Varro (92), but it alternates with the genitive, as in Livy (93), in a pattern of comparison that was to become more and more frequent.

(91) Cic. *ad Q. fr.* 1,1,10: *de quibus honore et dignitate et aetate praestat Tubero*
‘Tubero is first among them in official rank, personal consequence, and age’

(92) Varro *rust*. 1,38,1: *stercus optimum scribit esse Cassius uolucrium praeter palustrium ac nantium. de hisce praestare columbinum, quod sit calidissimum ac fermentare possit terram*
‘Cassius writes that the best excrement is that of the birds except

for swamp-birds or sea-birds.The best of them is the excrement of pigeons, because it is hot and makes the soil swell'

(93) Liv. 38,17,2: *non me praeterit, milites, omnium quae Asiam colunt gentium Gallos fama belli praestare*
'it does not escape me, soldiers, that of all the peoples who inhabit Asia the Gauls stand first in reputation for war'

However, (93) clearly shows at least two other closely related facts: especially when the standard is represented by a plural noun, a verb of this set tends to acquire the meaning of the superlative rather than of the comparative; moreover, it also accounts for the fact that the standard can occur in the genitive, the typical case of the standard with the superlative, which, however, is simultaneously just an alternative to *de* plus ablative. It is interesting that once more, the history of the comparative and the superlative significantly overlap. Examples (94) and (95) show the pattern in early and late texts.

(94) Homer 710: *dum … Tros Eumediades cursu praecederet illos*
'until the Trojan Eumediades win them in the race'

(95) Amm. 28,4,31: *effusius omnes festinant praecipites ut uelocitate currus ipsos anteeant certaturos*
'they all hasten in crowds to the spot at top speed, as if they would overtake the very chariots that are about to take part in the contest'

3.3.4.1. The decay of the surpass comparative. The surpass comparative was exploited for rhetorical or merely literary purposes throughout the history of Latin, from Plautus to Gregory of Tours. It was always felt, however, to be a stylistically marked construction, proper to the high registers of Latin. It come as no surprise, therefore, that, even though the surpass comparative continued in the written language, it was not so widespread and popular as to survive in Romance as a productive and living pattern. A sentence such as *Giorgio supera Marco in / per dottrina* could be uttered in Italian, but it would inevitably sound artificial, clearly a calque from Latin.

Additionally, there is reliable evidence that this pattern was never felt as belonging to the core of Romance. A good example of this claim is represented by a famous anonymous text known as the *Letter of Prester John*,

written in Medieval Latin probably between 1189 and 1192. This text enjoyed great celebrity and was soon translated into various languages, including Anglo-Norman, a few years after its publication.

What is interesting is the fact that, even though the translation is almost literal, a sentence like (96) was translated into the Anglo-Norman version in (97): there is no trace of the surpass comparative *praecello*; instead, the original was reformulated into a more common expression, no similar pattern being available in the repertoire of any speaker of Anglo-Norman (and apparently any variety of Romance).

(96) Presbiter Johannes 9: *quia ego, presbiter Johannes, dominus sum dominantium et praecello in omnibus divitiis, quae sub caelo sunt, virtute et potentia omnes reges universae terrae*
'because I, Prester John, I am the master of the rulers and I surpass in all riches that are under the sky, and by virtue and power all the kings of the entire world'

(97) Prestre Jon 125–128: *ke jo, Prestre Jon numez, / sur tuz altres sui sires clamez; / des richesces que suz ciel sunt / ai plus que autre ke seient el mund*
'that I, Prester John by name, am called king above all others; of the riches that are under the sky I have more than anybody else in this world'

The surpass comparative did not continue in the Romance languages, where it was perceived as syntactically artificial from the beginning up to the present.

3.4. Comparative of minority

The comparative of minority was continuously expressed in Latin with the same syntactic pattern from the beginning to the rise of the Romance languages: the regular pattern *minus* plus adjective plus *quam* is attested throughout. This pattern was so stable that the adverb used in the comparative of minority continued, even into the Romance languages, where it is by far the

most common: It. *meno*, Fr. *moins*, Sp. and Port. *menos*, but not in Rumanian (where *mai puţin* 'less' but literally 'more small' is used instead).

As pointed out by Torrego, "Obviously, the intensifying suffixes of adjectives denoting 'small quantities' (Bertocchi and Orlandini 1996: 206) such as *inferus*, *paruus*, in consequence of which an intensification produces a diminution, come after in that they are comparative of majority 'in small'" (2000: 254 n. 6 [my translation]).[14] This kind of comparative of minority is not discussed in this chapter.

Regarding etymology, *minus* is the neuter of *minor* 'less' used adverbially, a comparative without a positive form but directly formed on the stem. According to Ernout and Meillet (1985: 404), "opposé à *plus* ... plutôt qu'à *magis*", as illustrated by the idiomatic expression *plus minusue* 'more or less' or examples such (98) (cf. also Plaut. *Bacch.* 1103).

(98) Cato *agr.* 4,4: *fundus melis*[15] *erit, minus peccabitur, fructi plus capies*
'the farm will improve, there will be less wrongdoing, and you will receive greater returns'

In Latin, from the beginning, the adverb for the comparative of minority is *minus*. In its comparative function it is attested even in the epigraphic style of the *Senatus Consultum de Bacchanalibus* ((99); 186 BCE), where remarkably the standard is in the ablative, a coding that was to be replaced by the more regular and frequent *quam*, as was necessary in examples like (100).

(99) *S. C. de Bacch.* II: *DUM NE MINUS SENATOR[I]BUS C ADESENT*
'as long as not less than hundred senators were present'

(100) Plaut. *Epid.* 12: *minu' iam furtificus sum quam antehac*
'I am already less theft-maker than before'

14. "Naturalmente, funcionan como expresión de la inferioridad los sufijos de intensificación de adjetivos que denotan "pequeñas cantidades" (Bertocchi-Orlandini 1996: 206), como *inferus*, *paruus*, donde una intensificación produce una disminución, pero siguen siendo de superioridad "en lo pequeño" ".

15. Though not directly relevant here, the form *melis* = *melius*, structurally parallel to *magis*, and therefore chosen by some editors as *lectio difficilior*, is rather puzzling. In any case, it should probably not be discarded.

About four centuries later, (101) shows, the standard introduced by the ablative in (98) was regularly introduced by the particle *quam*.

(101) Tac. *ann*. 14,37,2: *quippe sunt qui paulo minus quam octoginta milia Britannorum cecidisse tradant*
'and there are some that say that a few less than eighty thousand Britons fell'

Throughout all periods of Latin, *minus* could also occur as a marker of absolute comparative of minority (102).

(102) Sen. *epist*. 95,30: *et ista quamdiu furtim et a singulis fiunt minus noxia minusque monstrosa sunt*
'and as long as such crimes are committed by stealth and by individuals, they are less harmful and less portentous'

Except for some frozen phrases such as *minus aequo* 'less than right' and the like, or some isolated examples that still show the standard in the ablative as in (103), it was regularly introduced by the connecting particle *quam* and the same case as the comparee (104).

(103) Hor. *sat*. 1,6,23–24: *fulgente trahit constrictos Gloria curru / non minus ignotos generosis*
'vanity draws all, bound to her glittering car, the unknown no less than the well-known'

(104) Varro *rust*. 2,4,22: *minor grex quam maior minus sumptuosus est*
'the small herd of sheep is more expensive than the large one'

Occasionally in the comparative of minority the standard is expressed through noncanonical patterns: see (105), where the standard is syntactically encoded through *atque* (or *ac*) in the comparison of equality, a pattern that occurs also in other authors (Catull. 61,176–178: *illi non minus ac tibi / pectore uritur intimo / flamma sed penite magis*; Lucr. 2,350–351: *quod posse uidemus / nec minus atque homines inter se nota cluere*).

(105) Hor. *sat*. 2,7,96: *qui peccas minus atque ego …*
'you who are wrong less than I am … '

Even though in principle metrical constraints can always be invoked (but such a solution is always hard to motivate and more difficult to prove, see Cuzzolin and Haverling, this work, vol. 1: 35), I wonder whether such a pattern is better explained if *atque* is understood as introducing an elliptical comparative sentence, which the translation provided tries to reflect.

There is another example in the literature that is rather puzzling: in (106), the comparative of minority rather unusually shows a complete split between the marker of comparison and the parameter of comparison, at first sight almost contradictorily.

(106) Flor. *epit.* 2,13,47: *sed nec minus admirabilior illius exitus belli*
'nor was the issue of the campaign less wondrous'

As seen with (45) above, Florus's prose, despite its apparent simplicity, sometime shows some highly marked stylistic effects. Of course, it could also be that (106) is to be interpreted otherwise: it cnnot be excluded that, for instance, *nec minus* means 'nonetheless', so that the whole sentence would mean 'and nonetheless the campaign was really wondrous', assigning the comparative form *mirabilior* the regular function of elative, which is commonly used by Florus. In this case the juxtaposition of *minus* and *admirabilior* would simply be an artificial touch. But at the same time it cannot be denied that *minus admirabilior* forms a *iunctura* that compels the reader to interpret it as a single functional unit. The combination of the adverb *minus* plus the comparative of majority is not unique, though, and occurs beyond any doubt in very late texts such as Oribasius ((107); 6th c.).

(107) Oribas. *eup.* 2,1 C 21: (*pullinum stercus est*) *a columbino stercore minus calidior*
'the excrement of fowl is less warm than that of pigeons'

The comparative of minority is also recorded in a linguistic context of code-mixing, as in (108); but such a case is extremely rare:

(108) Suet. *Claud.* 4,5: *qui uellem diligentius et minus* μετεώρως *deligeret sibi aliquem*
'I wish he could choose someone for himself in a more careful and less rash way'

As noted in Section 3.3.2.3.3, in late texts dating from the third century CE on, the spreading of *de* plus ablative as at least one of the regular patterns for the standard is also documented with the comparative of minority (109).

(109) Oribas. *syn*. 9,13: *non minus de una emina*
'no less than one hemina'

In some authors, such as Hyginus, who lived in the classical period, the standard could also occur in the accusative case (110).

(110) Hyg. *astr*. 4,18,4: *hanc stellam nonnulli Saturni esse dixerunt, redire autem ad signum annis XXX et quotannis non apparere non minus dies XXX, nec amplius XL*
'some said that this star was Saturn, but it returns to the sign of its departure in 30 years, and each year it is visible no less than 30 days and no more than 40'

Recently Asensio de la Cruz (2001) has proposed that the expression *cedere alicui aliqua re* was employed to express the comparative minority: it would be the negative counterpart of the surpass comparative. According to Asensio Cruz, Latin could also express the comparative equality by means of the verb *aequare*. It turns out that Latin would be the only language, to the best of my knowledge, that could express any type of comparative through a verb.

3.4.1. Comparative of minority encoded by sub-

Unlike the comparative of majority, where there are several patterns involving different cognitive perspectives, the comparative of minority was expressed in Latin by only one regular pattern throughout its history, as expected from our knowledge of typology. No language is known that possesses a special morpheme exclusively for the comparison of minority; no language exhibits morphological tools for the comparison of minority parallel to those for the comparative of majority. This type of comparison can only be expressed lexically, if at all (see Cuzzolin 2005).

Latin, however, can use the prefix *sub-* – not a dedicated morpheme – for a specific function very close to a negative counterpart of the elative function of

the adjective, as in (111). An adjective like *subtristis* (see (112)), for instance, means ‘almost sad, not really sad’ and could be paraphrased ‘less sad than expected’.

(111) Cic. *de orat.* 2,274: *sunt etiam illa subabsurda, sed eo ipso nomine saepe ridicula, non solum mimis perapposita, sed etiam quodam modo nobis*
‘then there are jokes that are somewhat absurd, but for that very reason often comical, and which are appropriate not only to actors in farce, but also to some degree to us orators’

(112) Ter. *Andr.* 447: *subtristis uisus est esse aliquantum mihi*
‘he seemed to be almost sad a lot’

This pattern never occurs with the standard. Moreover, the nuance conveyed by this adjectival form is functionally also rather close to forms incorporating evaluative morphology such as *timidulus*.

In the history of Latin, especially in the first centuries, *sub-* can also occur with an adverb such as *aliquantum* (112) or even, from a later stage, with a comparative suffix (113).

(113) Colum. 6,20,4: *huic* (scil. *bono tauro*) … *uenter paullo subtruncior*
‘the good bull has its belly a little less truncated’

This prefix is very frequent with adjectives of color, lending them a negative nuance: *subruber* does not simply mean ‘a little bit less than red’, but ‘reddish’ (as in Cels. 5,28,8: *pars corrupta subalbida, subrubra* ‘the infected part whitish, reddish’).

3.5. Comparative of equality

As noted in Section 3.2.3, the origin of the comparative of minority is supposed to be closely connected with the origin of the comparative of majority. The fact that it was expressed only through the particle comparative and juxtaposition of the two elements of the comparison, introduced by the correlative particles *tam* … *quam*, shows that it developed via grammaticalization of two independent clauses.

Even for the comparative of equality, grammars tend not to note that this type of comparison is expressed by more than one pattern. However, as with the other comparative notions in Latin, there are several patterns.

The first examples of *tam … quam* occur in Plautus, and, as Hofmann & Szantyr observed (1972: 590): "Bei Komp[arativ] findet sich *tam – quam* zunächst nur in der Formel" (114) or with a sentence as second element of the comparison (115).

(114) Plaut. *Asin*. 490: *tam ego homo sum quam tu*
'I am as much of a man as you are'

(115) Plaut. *Bacch.* 767: *tam frictum ego illum reddam quam frictum est cicer*
'I'll make him as fried as a chickpea is'

This particular type of "correlative diptych" is the normal pattern for the comparative of equality throughout the history of Latin, attested until the fifth century (for instance, in Salv. *Gub*. 3,1).

From the age of Plautus (*Bacch.* 1091) onward, the diptych *tam magis … quam magis* is attested; it is also found in poetry (Lucretius, Vergil).

From the age of the *Rhet. Her.* 1,9,15 the correlative pair *quo … eo* becomes fairly normal. At a possibly lower sociolinguistic level ("anscheinend mehr umgangsprachliches": Hofmann & Szantyr 1972: 591), the correlative pair *quo … hoc* (Cic. *Q. Rosc*. 3; *epist*. 4,13,5) is attested.

The correlative diptych *tam … quam* was also used from the beginning with the superlative, a phenomenon identified as "altlateinisch und archaistisch" by Hofmann & Szantyr (1972: 590): Plaut., Ter., Cato; Sall. *Iug*. 31,14.

The second term of the comparative of equality could also be introduced by *atque* (116), *ac*, or *et* (never by *-que*); see Núñez Romero Balmas (2002).

(116) Plaut. *Aul*. 296: *pumex non aeque est aridus atque hic est senex*
'this pumice stone is not as dry as this old man is'

In the comparative of equality the standard can also be expressed by a clause. This occurs throughout the history of Latin (117).

(117) *Itin. Eger.* 2,6: *et cum hi omnes, qui per girum sunt, tam excelsi sint quam nunquam me puto uidisse*
'since all these (mountains) that are all around are so high as to (make me) think that I never saw anything like it'

3.6. Superlative

In the history of Latin, the superlative turns out to be an even more stable construction than the comparative, and it was expressed by a more restricted set of freely alternating patterns that differed in frequency and distribution during different periods.

As mentioned in Section 2.4, a thorough investigation of the origin and development of the superlative in the oldest Indo-European languages remains to be done. It is very likely that it developed at a fairly late stage of Indo-European, as indicated by the fact that in some residual cases the morphology and syntax of the superlative almost coincide, and it is clear that the Indo-European superlative was built on the comparative.

Before going into detail, it is useful to provide some typological observations useful in describing and interpreting the origins and development of the various patterns of the superlative.

3.6.1. The morphology of the superlative

From the oldest records onward, the superlative could be encoded either morphologically or syntactically. The standard could appear in several different cases, but most often in the genitive.

The "complex" Latin morpheme for the morphological superlative is *-issim-*, but some allomorphs are also attested: "It combined the comparative suffix **-is-* with the *-m̥m-* of the **-(t)ero-/*-(t)m̥mo-* set. (The original suffix **-(t)m̥mo-* also occurs in Italic, but in relics only)" (Sihler 1995: 367). But in the superlative, Latin exhibits a high degree of allomorphy, giving rise to a number of different forms such as *pigerrimus*, *ultimus*, and *postremus* that can be traced back ultimately to *-m̥m-*formations (for a general overview, see Leumann 1977: 497–498).

From a semantic point of view, however, “The semantic affinity between the superlatives and the ordinal numerals … explains the frequent identity of the respective morphs … A semantic identification of the morph of the superlative with that of the ordinal may of course contribute to the spread of the *former…* ” (Kuryłowicz 1964: 238). Leumann himself has assumed this point: “Das *-(t)m̥mo-* dieser Ordinalia ist *offenbar* eine Abzweigung von dem räumlich-superlativischen des Typus lat. *intimus*, altind. *ut-tama-*” (Leumann 1977: 493 [emphasis added]).

However, the almost self-evident claim of a close connection between superlative and ordinal has been rejected by Sihler, who explicitly speaks of a “chance resemblance” (1995: 427) of the two categories. I accept the idea of Kuryłowicz and Leumann, which is corroborated by observations of other language families, observing not only that it allows a better description of the facts, but also that it casts new light on the syntactic development of the superlative itself.

3.6.2. The absolute superlative

Parallel to the comparative, the superlative can occur with no standard. In the case of the superlative, the absolute form is much more frequent than the superlative followed by the standard.

It occurs from the beginning of Latin either synthetically (118), where the superlative form, glossed as “*barbarismus*” by Charisius (1,83), shows the regular complex suffix *-issim-* instead of the normal *-errim-* of *celerrimus* with assimilation, or analytically, even with adverbs (119). The analytic form allows for code-mixing (120).

(118) Enn. *ann.* 599: *equitatus iit celerissimus*
‘the cavalry went on very fast’

(119) Caes. *civ.* 3,9,6: *nuper maxime*
‘very recently’

(120) Cic. *Att.* 1,9,2: *quae* γυμνασιώδη *maxime sunt, ea quaero*
‘I look for those things that are very fitting for a gymnasium’

3.6.2.1. Intensifiers with the superlative. The most common means in the languages of the world to express a highest grade is a lexical adverb: almost every language possesses an adverb corresponding to English *very* (Cuzzolin and Lehmann 2004: 1217), and the lexical sources for this kind of intensifier can sometimes be remote from the meaning of *very* (see the fundamental paper of Austerlitz 1991). The same constraint on number of syllables in the comparative (Section 3.1.1.1.3) could also apply to the superlative, though it should be borne in mind that the main constraint was a large number of syllables (with numerous exceptions thoughout the history of Latin).

The regular adverb for the absolute superlative was *maxime*, formally the adverb of *maximus* < **mag-som-os*, the irregular superlative of *magnus* (121).

(121) Cic. *epist.* 5,5,1: *homo omnium meorum in te studiorum et officiorum maxime conscius, tui cupidus, nostri amantissimus*
'a man very conscious of all my attentions and duties toward you, interested in you, and very favorable toward us'

However, alongside *maxime*, from earliest Latin to its last stages, a panoply of adverbs is used to intensify or emphasize the parameter, different ones coming to the fore at different times: *longe* 'long' (122), *ualde* 'strongly', *facile* 'easily', *multo* 'much', *admodum* 'really'. The origins of these adverbs vary: some are original adverbs (actually original ablatives ending in *-ēd* like *CIL* I 581,27: *facilumēd*), adjectives in the ablative like *multo*, or lexicalized prepositional phrases like *admodum*.

(122) Enn. *ann.* 1,2,95: *et simul ex alto longe pulcerruma praepes / … auis*
'and, at the same time, from above a very beautiful, favorable bird'

Late Latin also has examples like (123), where *satis* corresponds to 'really, indeed' and the clause means 'they are really the most dangerous'.

(123) Anthim. 74: *nam si crudiua* (i.e., *legumina*)*, satis grauissime nocent*
'in fact if the pulses are uncooked, they injure very seriously'

By far the most frequent adverb, however, which was probably felt as the unmarked choice and paradigmatic for the superlative, was *maxime*.

Of course, especially but not exclusively in Late Latin, the number of adverbs that could perform the function of superlative was huge: *ualde*, *uehementer*, *satis*, *uere*, *nimis*, and occasionally also *multum*, which became the regular form for the analytic absolute superlative in Italian and Spanish (Hofmann & Szantyr 1972: 163–164).

In (124), the pattern has the function of a superlative absolute.

(124) Tac. *Agr.* 39,3: *id sibi maxime formidolosum, privati hominis nomen supra principem attolli*
'that was the scariest thing to him, that the name of a private citizen could be elevated above that of a prince'

3.6.2.2. The absolute superlative encoded by prefixes: Per- *and* prae-. Another rather common way of encoding the meaning of the absolute superlative was morphological: two prefixes, *per-* and *prae-*, were added to the parameter to intensify its meaning (see the fundamental paper of André 1951; see also Van Laer 2005). They are usually used with adjectives and adverbs, but they can also occur with verbs. While prefixation to form superlatives may not be widespread among the world's languages, it is an option not unknown to other branches of Indo-European, including Greek, where the prefix περί 'round about' is used, as in *Il.* 1,603: φόρμιγγος περικαλλέος 'of a very beautiful lyre'; or in Celtic, where in Old Irish the prefix *ro-* and in Middle Welsh the prefix *ry-* mean 'too' (from **pro*, possibly an old instrumental form from the same root **per-* from which ultimately both the prefixes *per-* and *prae-* derive).[16] It is difficult, however, to decide whether this feature is inherited or possibly borrowed. As André observed (1951 : 146–147): "L'absence en osco-umbrien de composés en *prai-*, *pre-* laisse supposer que le type en *prae-* est un fait purement latin, l'absence de tmèse et d'apophonie à la fois qu'il est plus rècent et analogique".

In Latin the grammarian Charisius (304,7) already recognized the superlative sense of compounds with *per-*, and this rule for forming the superlative is productive from the beginning (see the chronological list of forms

16. In Modern Irish the prefix *ro-* followed by lenition (*ro-chasta* 'too difficult', from *casta* 'difficult') and in Modern Welsh the prefix *rhy-* followed by soft mutation (*rhy fawr* 'too big', from *mawr* 'big') are still productively employed with the meaning 'too, very'.

in André 1951), and this way of encoding the superlative nuance was employed from the beginning, for instance in Livius Andronicus 180: *parcentes praemodum*.

Of course, superlative means only absolute superlative: at no stage of the history of Latin is there a single example of an adjective in the superlative expressed with prefix *per-* or *prae-* and a standard, like **praeclarus omnium* 'the most famous of all'.

But over time these two prefixes must have begun to lose their function as intensifiers, because from the first century BCE onward forms with both prefix and suffix occur, such as *perpolitissime* (*Rhet. Her*. 4,44,3).

In the earliest texts, forms with *per-* outnumber forms with *prae-*: "C'est à l'époque de Cicéron au Ier siècle a. J.-C. et non chez le seul Cicéron que les composés en *per-* trouvaient leur plein développement" (André 1951: 144). Cicero was very fond of this way of expressing the superlative nuance, especially with *per-*: in André's list (1951), Cicero is represented by 3 compounds with *prae-* but 127 with *per-*.

From Cicero's age onward, forms with *prae-* began to gain ground at the expense of *per-*, and in Late Latin they generally prevail over compounds with *per-*.

The earliest attested adjective with the prefix *per-* is *persibus* 'very shrewd', in the fragments of Naevius, whereas the first compounds with *prae-* occur in Plautus (*perbonus*, *perdocte*, etc.); the last compounds are in the sixth century: *perfortis* 'very strong' occurs in Boethius, *praeconspicabilis* 'very clear' in Cassiodorus (see André 1951).

When an adjective shows both prefixes, *per-* is usually older than *prae-*: for instance, *perlongus* 'very long' occurs in Plaut. *Trin.* 775 for the first time, whereas *praelongus* 'very long'occurs in Liv. 22,46,5.

However, that the superlative could not be the same in form as the intensifier is clear from the fact that *perbonus*, for instance (attested several times in Plautus: *perbonum*: *Most*. 691; *perbono*: *Most*: 672; *perbona*: *Merc*. 526; *perbonam*: *Most*. 764) was treated differently from the true superlative *optimus* (admittedly not regular but suppletive); the two forms coexisted for some time.

Clearly, there were originally some constraints on the distribution of *prae-* versus *per-*: "Les formes en *prae-* sont disfavorisées par le hiatus de préfixe devant initial vocalique" (André 1951: 138). However, phonological con-

straints like that one lost strength over time and the distribution of *prae-* and *per-* should be accounted for differently; but such an investigation is still a desideratum. In the manuscripts, *per-* and *prae-* are constantly confused in every century.

Another salient element is that the adjective and the adverb supposedly derived from it can show different prefixes and also occur in different periods: this is, for instance, the case of *perlepide* 'very funnily', attested in Plautus, and *praelepidus* 'very hilarious', which occurs in Julius Valerius, from the fourth century CE.

Compounds with *per-* could also occur in tmesis: this phenomenon is well attested for the first time in the language of comedy: in (125)–(126); *per … saepe* and *per… scitus* correspond to the adverb *persaepe* and the adjective *perscitus* respectively.

(125) Plaut. *Cas*. 370: *per pol saepe peccas*
'by god, you are very frequently wrong'

(126) Ter. *Andr*. 486: *per ecastor scitu' puer*
'by god, a very clever boy indeed'

But whereas in the language of comedy tmesis attests to the residual vitality of this very old syntactic pattern inherited from Indo-European, from the first century CE onward tmesis was "downgraded" and used only for stylistic purposes, as in (127), from the sixth century, where the latest example occurs.

(127) *Dig*. 22,3: *per etenim absurdum est*
'and indeed it is absurd'

The actual meanings of the two prefixes are not easy to determine; an intrinsic sociolinguistic nuance is probable: "Die Steigerung durch *per-* scheint mehr volkstümlich gewesen zu sein" (Hofmann & Szantyr 1972: 164), whereas Löfstedt considered it to be the "verstärkendes Praefix *par excellence*" (1911: 92). But considering them instead to be two prefixes used in everyday spoken Latin, they seem to have been "familiers" (André 1951: 141): "Ils remplaçaient des superlatifs à suffixe inexistants ou attestés seulement par la langue archaïque (*egregissima*) ou du Bas Empire (*piissimus*)".

However, even though Cicero used it often in his letters and not infrequently in the other prose works, the prefix *per-* (not to mention *prae-*) does

not usually occur either in works that are of high literary register or in authors who do not admit traces of a low variety of Latin, such as Caesar. It seems to relate to stylistic reasons rather than grammatical constraints. This is probably also why it left no trace in Romance languages either (where apparently only *perlongus* continued to exist: see Rum. *prelung* 'long', possibly It. *spilungone* 'lanky'; on this point see Hofmann & Szantyr 1972: 164), thus rather supporting the claim that they were not deeply rooted in the language, and consequently in contrast to the opinion upheld by Löfstedt.

3.6.2.3. The superlative reinforced by quam. Another Latin pattern for a strengthened form of the absolute superlative was *quam* plus the superlative form of the adjective, as in *quam maximum*. It is attested from Early Latin onward. In (128), *quam* is connected not with *longissume* but with *potest*, and *longissume* is connected with *ab istoc*. The original pattern is however still preserved in (129).

(128) Plaut. *Men*. 834: *concede huc, mea nata, ab istoc quam potest longissume*
'come here, my daughter, as far away as you can get from this guy'

(129) Plaut. *Capt*. 352: *quam citissume potest, tam hoc cedere ad factum uolo*
'as soon as possible I want this to be an accomplished fact'

It has been observed that *quam* plus the positive of the adjective is "volks- und umgangssprachlich" and occurs in Late Latin (Hofmann & Szantyr 1972: 590): Marcell. *Med*. 9,112: *haec … quam leni prima feruere facies*, whereas the pattern *quam* plus comparative is described by Hofmann & Szantyr as "ganz spät und vulgär" (1972: 590).

3.6.3. The encoding of the standard

3.6.3.1. The standard in the genitive. From the beginning of recorded Latin, the relative superlative encodes the standard in the genitive: this was the unmarked choice throughout the history of Latin.

The fact that there is a tight connection between ordinal numbers and superlatives is reflected, for instance, in the morphology of many Indo-European languages and had already been proposed by Sapir: "Judgments

of quantity in terms of units of measure or in terms of number always presuppose, explicitly or implicitly, preliminary judgments of grading" (1944: 122). The same fact, however, makes it easier to understand the syntax of superlatives and to account for the fact that, unlike the comparative, the standard in the Latin superlative was regularly in the genitive, attested already in the oldest documents ((130)–(131)).

(130) Enn. *ann*. 429: *o genitor noster Saturnie, maxime diuom*
'O our father Saturnius, the greatest of the gods'

(131) Plaut. *Rud*. 70: *nam Arcturus signum sum omnium acerrimum*
'in fact (because my star) sign (is) the Bear I am the sharpest of all'

According to the commentaries, (130) echoes (with stylistic variation) Homer *Il*. 8,46: ὦ πάτερ ἡμέτερε Κρονίδη ὕπατε κρειόντων, but the genitive is certainly not due to any Greek influence.

3.6.4. The standard with e, ex *plus ablative*

The genitive is found throughout the history of Latin, but it is difficult to identify the criterion by which the genitive and the prepositional phrase *ex* plus ablative alternate for the standard, a topic which demands investigation.

Even though it can safely be claimed that the genitive was the unmarked choice for the standard after a superlative, from the time of Plautus onward the standard could be expressed by the prepositional phrase *ex* plus ablative (132), which became increasingly frequent over time.

(132) Plaut. *Trin*. 94: *sed tu ex amicis certis mihi es certissimus*
'but you are the most reliable of all the reliable friends of mine'

I assume that *ex* plus ablative instead of the genitive is not motivated by metrical constraints, which could possibly favor this strategy. However, in Ancient Greek too, the standard of the superlative is occasionally expressed by ἐκ plus genitive instead of the regular bare genitive in some verse texts: see for instance Aristophanes, *Equites* 562–564: Φορμίωνί τε φίλτατ' ἐκ / τῶν ἄλλων τε θεῶν 'Αθη- / ναίοις 'the dearest of the other gods to Phormio and to the citizens of Athens'.

Two remarks, however, are needed. First, the fact that in some Indo-European languages such as Ancient Greek the standard is expressed by the genitive both in the comparative and in the superlative cannot conceal the fact that the nature, and consequently the function, of the two genitives is different: with the comparative the genitive has a separative function, taken over from the original ablative case, whereas with the superlative it performs a partitive function. This is another example of the fact that behind the same form there can be two different functions.

Second, in Latin the change from the genitive to *ex* plus ablative for the standard with the superlative is more noticeable than the change from the bare genitive to the genitive governed by the preposition ἐκ in Ancient Greek, where the variation could only be interpreted as a stylistic nuance, given that the morphological case remains the same. Therefore, in this instance the similarity between Greek and Latin turns out to be more apparent than real.

It is difficult, if not impossible, to identify the precise conditions under which *ex* plus ablative was felt by the speakers as the correct expression of the standard, or more precise than the genitive. However, considering (133)–(134), it is possible that the standard in the genitive began be replaced by *ex* plus ablative in contexts where some element occurred that related somehow to quantification, such as a quantifier like *multis* in (133) and (134) or an indefinite pronoun as in (135)–(136)–(137)–(138), down to Livy (on the superlative in combination with a quantifier as in (137) see Bertocchi, Maraldi, and Orlandini, this work, vol. 3: 131–136), even with quantifier in the parameter without coindexing.

(133) Plaut. *Poen*. 1203–1204: *multa sunt mulieris uitia, sed hoc e multis maxumumst / quom* . . .
'many are the women's defects but this is the greatest of the many, that . . . '

(134) Plaut. *Stich*. 119–120: *quanta mea sapientiast / ex malis multis malum quod minimum est, id minimest malum*
'to the best of my knowledge, of infinite ills the least irksome is the ill that irks the least'

(135) Sall. *Catil*. 59,3: *praeterea ex gregariis militibus optumum quemque armatum in primam aciem subducit*
'then he guided to the front line all the best in arms of the soldiers'

(136) Caes. *Gall.* 5,14,1: *ex his omnibus longe sunt humanissimi qui Cantium incolunt*
'of all people those who live in Cantium are by far the most human'

(137) Liv. 2,15,1: *missi confestim honoratissimus quisque ex patribus*
'and those of the fathers who were held in the highest esteem were dispatched forthwith'

In (136), however, it is possible see that the location of the standard at the beginning of the sentence allows for two interpretations: besides the regular one, another in which the fronted phrase performs the function of a topicalizing element. In (138), the function of the prepositional phrase is to emphasize the fact that the comparee stood out from the set of elements it was supposed to belong to.

(138) Cic. *rep.* 2,37: *sed sequitur is qui mihi uidetur ex omnibus in re publica uidisse plurimum*
'but he follows who out of everybody seems to have seen the most in the republic'

Obviously, as mentioned above (3.6.1), the replacement of the genitive by *ex* plus ablative could also account for the fact that from a cognitive point of view, the superlative is singled out of the set of all elements that share the feature indicated by the parameter. In addition, in many examples, including (133), (136) and (138), the standard frequently precedes the comparee, which is interesting because they still conform to the typologically expected ordering of standard and comparee.

3.6.4.1. The standard introduced by inter*,* ante*, and* praeter. Even in the case of the relative superlative, the standard is sometime introduced in a non-canonical way, by prepositions that were also employed for comparison, thus confirming that throughout the history of the comparative and superlative the line of division between the two cognitive domains was never definitively drawn. Only in Late Latin are there some examples where the standard is expressed by the ablative just as for the comparative (Hofmann & Szantyr 1972: 111). But this does not reflect a new phenomenon, but only the fact that the authors at that time had not yet mastered the syntax of Classical Latin.

The prepositions most often used to introduce the standard in the superlative were *ante*, *inter*, and *praeter*, three prepositions with a clear spatial origin and meaning. As with the comparative, it is useful to stress that this variety of preposition is not particularly meaningful from the typological point of view, all prepositional phrases being reducible to the same basic pattern.

I have already noted that the ancient grammarians were sometimes uncertain as to how to interpret a pattern with the standard introduced by a preposition – whether as a comparative or a superlative. Torrego's analysis (see Section 2.3.1) alleviates some of the doubts expressed by the ancient grammarians. In the following examples, however, a superlative interpretation seems almost certain. We begin with *ante* (139), which also occurs in later poets: Lygd. 3,4,93: *longe ante alias omnes mitissima*; Stat. *Theb*. 10,701: *tua … ante duces notissima uirtus* (this example is of special interest because it shows the *comparatio compendiaria*); and also in prose ((140)–(141)–(142)).

(139) Verg. *Aen*. 4,141: *ipse ante alios pulcherrimus omnis*
'(Aeneas) himself, goodly beyond others'

(140) Liv. 1,15,8: *longe ante alios acceptissimus*
'by far the most accepted before all others'

(141) Plin. *nat*. 8,142: *animal fidelissimum ante omnia … canis*
'the most faithful animal of all is the dog'

(142) Apul. *met*. 9,14,2: *ante cunctas mulieres longe deterrimam*
'by far the worst of all the women'

Only one additional remark is needed: given its etymology and its semantics, *ante* tends to occur in contexts where an element tends to be singled out of a series; the verb is frequently stative, such as *esse*, or even absent, the clause being nominal.

The other prepositions with some clear examples are *inter* ((143)–(144)) and *praeter* ((145)–(146); see *ThLL* s.v.: "iuxta superl."; on the evaluation of *prater* as intrinsically superlative according to Torrego see Section 3.3.2.3.4 above at (77)).

(143) Caes. *Gall*. 2,4,5: *plurimum inter eos Bellouacos et uirtute et auctoritate et hominum numero ualere*
'among these the Bellovaci had a predominant influence because of their courage, their authority, and their number'

(144) Veg. *mil.* 4,44: *inter tanta … mortium genera equi acerrimus casus est*
'however, of the many types of death, this one is the cruelest'

(145) Suet. *Dom.* 12,2: *praeter ceteros Iudaicus fiscus acerbissime actus est*
'besides other taxes, that on the Jews was levied with the utmost rigor'

(146) Hyg. *astr.* 2,38,2: *hunc alii Pholon esse Centaurum dixerunt, eum qui auspicio praeter ceteros plurimum ualuisset*
'others said that he was the Centaur Pholon, who in the art of the foreseers was the most skilled of all'

3.7. Superlative of minority

Even for the superlative of minority, Latin developed its own construction like the other Indo-European languages. It was expressed analytically, with the adverb *minime*, the superlative of the adverb *minus* 'less', which originally had the meaning of 'not, not at all', as shown by (147). The strategy occurs from the beginning of Early Latin ((148)–(149)).

(147) Plaut. *Mil.* 1001: *quia enim loquitur laute et minime sordide*
'because he speaks and not at all lousily'

(148) Plaut. *Vid.* 40–43: *si tibi pudico ⟨homine⟩ est opus et non malo, / qui fidei plenior sit quam serui tui / cibique minimi maxumaque industria, / minime mendace, em me licet conducere*
'if you need a man that's decent, that's not a bad sort, one who'll show you more loyalty than your own slaves, one you can feed least, sweat most, and trust to the utmost – here I am, sir, ready to be hired'

(149) Caes. *Gall.* 7,84,2: *ipse a dextro cornu, quod eam partem minime firma hostium esse animaduerterat, proelium commisit*
'he himself took station on the right wing, having noticed that the corresponding division of the enemy was the least steady, and joined battle'

But, despite the fact that *minime* was the counterpart of *maxime* from the beginning, *minime* not only retained the function of a negative adverb, but it also occurred as adverb whose scope was the sentence itself, as shown in (150), and even occurs in prohibitions (see, e.g., Plaut. *Most*. 272 or Liv. 23,47,2).

(150) Cic. *nat. deor*. 2,26: *ipse uero aer, qui natura est maxime frigidus, minime est expers caloris*
'the air itself, which by nature is very cold, but in no way deprived of any heat'

In (150) the translation 'completely deprived' (*minime expers* = *expertissima*) would obviously give a different sense, inappropriate to the context.

4. Concluding remarks

In the functional domain of comparison, several linguistic trends were at work. Some have turned out to be relevant to our analysis, some have not. Two in particular are important, each in a different way: the tendency to replace synthetic forms with analytic ones, and more importantly, the tendency to reduce to a single pattern or type, in typological terms, the available comparative construction, in which the ablative type and the particle type seem to merge.

Many more or less convincing reasons have been put forward for the tendency to replace synthetic forms with analytical ones: iconicity, economy, cognitive grounds. We do not discuss this issue: we only observe that the trend is well documented in all the Romance languages. It is not criticial to the typological description of the development from Latin to Romance.

From a typological point of view, the comparative and superlative patterns turn out to be among the stablest in the history of Latin, and among them the comparatives of minority and equality give no hint of any generalizing, having remained basically unchanged for centuries. But there is no domain of comparative and superlative where the means of encoding the standard does not offer a vast range of choices.

The most important change, however, concerns the comparative patterns where the standard is in the genitive. When the genitive began to be replaced

by *de* plus ablative, the preposition *de* was reanalyzed as an element functionally equivalent to the pivot and no longer as a “complex” case marker, thus giving rise to the pattern that is now regular in languages such as Italian and French, namely *di* and *de*. Consequently *de* also took over the function of pivot, ousting the meaning proper to the preposition of expressing motion from above.

To claim that the standard expressed in prepositional phrases, no matter what the preposition, is an allotrope of the ablative – that is, of the separative comparative – misrepresents the data to a certain extent, given that at some point that is difficult to pin down but not later than the fifth century, the prepositions introducing the standard began to be reanalyzed as the pivot element of the pattern.

However important it may be, this change does not affect the basic system of comparison but consists of a transcategorization that had no impact on the system, but on the contrary favored its preservation.

As for the superlative, no conclusions comparable with those concerning the comparative can be drawn. From the beginning, the standard was expressed by the genitive and only subsequently by *ex* plus ablative. Other minor patterns introduced by prepositions are only sporadically attested and therefore are almost irrelevant for typology. Here too, the development observed in the comparative strategies took place: the prepositional phrase *de* plus ablative, which was structurally symmetrical with the prepositional phrase *ex* plus ablative, was reanalyzed as formed by a pivot, *de*, and the standard. The fact that a pivot developed out of an analytical case seems to be the most relevant phenomenon from the syntactic viewpoint, even though it has not been adequately studied, and typologically interesting, even though its attestations are not rare.

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Michèle Fruyt

Grammaticalization in Latin

1. Basic concepts

1.1. Grammaticalization as a general process

Grammaticalization* is one of the processes that drives linguistic change,[1] and it is an important one. Grammaticalization is present in all languages at all times[2] and seems to be a pervasive diachronic process in natural languages. But this diachronic process is also one that can be analyzed synchronically.[3]

Grammaticalization is a type of innovation and linguistic change where the speech community is unaware of the phenomenon and does not control it, as opposed to other innovations that are under the control of the speech community (or of individual members of the speech community).

Grammaticalization, which is independent of the control, will, or consciousness of the speech community, is a gradual transition that happens over time. Forms of expression (morphemes, lexemes, word sequences, etc.) may be grammaticalized and become grammatical lexemes (or morphemes) even though they were not previously grammatical at first. Or they may become

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* The author wishes to thank the editors of this volume for their assistance, especially in finding appropriate English equivalents for terms and concepts which come out of the French linguistic tradition.

1. For other phenomena involved in linguistic change see n. 8.
2. As may be seen from the numerous works published in the last twenty–five years dealing with a great variety of languages. See Section 2.3.
3. Cf. Desclés and Guentchéva (1997:17); and the title of Robert (2003): *Perspectives synchroniques sur la grammaticalisation*. See also Section 2.6: the indicator of the progress of a given evolution is often a synchronic variation displaying the cooccurrence of various evolutionary stages.

more and more grammatical, if they were already grammatical lexemes (or morphemes).[4]

It is generally[5] thought that the more grammaticalized the linguistic elements are, the more they are constrained. The loss or lack of autonomy[6] is usually recognized as an important criterion for grammaticalization.

Grammaticalization may create a new item which is irregular but is maintained thanks to its high frequency, which causes the speaker to memorize it.

At the same time, the grammaticalized or grammaticalizing element may undergo a loss of substance: it may become shorter phonetically and it may lose some semantic features, becoming more generic and less specific.[7] These reductive processes are not specific to grammaticalization.

1.2. Grammaticalization vs. other phenomena

There are several phenomena besides grammaticalization involved in linguistic evolution.[8] In this chapter, however, we concentrate on the usual processes

4. According to Kuryłowicz's distinction (1945–49), which was later generally adopted and extended, for example, through the concept of "grammaticalization scale" (Lehmann 1995: 25) and the notion of "grammaticality" treated as a scalar phenomenon: cf. the grammatical 'cline' in: Fischer, Norde, and Perridon (2004): *Up and Down the Cline*; discussion in Fruyt (2008a).
5. For a review of the theories on grammaticalization and the history of the various linguistic approaches, see Joseph and Janda (2003); Marchello-Nizia (2006); and Sections 2.2 and 2.3.
6. One of the parameters proposed by Lehmann (1985, 1991, 2002, 2004). For Lehmann's other parameters and Hopper's principles, see Marchello-Nizia (2006: 49–50).
7. The problem is to decide whether these processes happen at the same time or whether one of them happened first and gave rise to the others. Nevertheless, phonetic and semantic changes are linked. The whole phenomenon should probably be thought of as a combination of several interdependent factors. Cf. Traugott and Heine (1991: 7; grammaticalization as a subset of phenomena); Fruyt (1998a).
8. Meillet (1912, 1916) mentioned four phenomena involved in linguistic change: the laws of phonetic change, analogy, borrowing, and grammaticalization. He only assigned a minor role to analogy, in contrast to Saussure's conception (1916, 2002) of analogy as a widespread and even generalized process, operating in the consciousness of the speaker, and in contrast to most of the reflections on linguistic change. Anttila (1989) lists five phenomena: sound change, analogy, rule change (a kind of reanalysis), semantic change,

with which grammaticalization may cooccur and interact, mainly agglutination, lexicalization, and analogy in individual cases of historical change (cf. Section 2.1).

1.2.1. Agglutination

Grammaticalization often has its origin in the agglutination[9] of several "words" into a single new lexeme,[10] which we will call a "complex lexeme" or "complexeme".[11] This is usually a process which is not under the control of the speech community, and the community is unaware of the linguistic change. The process is well documented in the Indo-European languages for temporal adverbs meaning 'today' or 'nowadays'.

- Eng. *today* (*to-day*) 'on this present day' (from OE *tō daeg* 'on (this) day', cf. OE *hēodœg*),
- Ger. *heute* (agglutination and shortening of a sequence of two words, containing the deictic stem *hi-* and the noun 'day' in the instrumental case: OHG **hiu dagu*; *hiutu,* MHG *hiute*),

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and borrowing. More recently, Peyraube (2002) mainly talks of reanalysis, analogy, and borrowing. Analogy in contemporary works of scholarship is usually considered a fundamental phenomenon in linguistic change: see Section 1.2.4.

9. Agglutination is a fundamental process in Latin and the Romance languages, but unfortunately it is not given its full due in many linguistic studies. For a definition, description, and typology of agglutination in the Latin lexicon, see Fruyt (1990). For its productivity within the Latin lexicon, see Fruyt (2000).

10. We use *lexeme* for a *lexical item* or *lexical unit.* A lexeme is always a *free morpheme*, a *morpheme* being a meaningful linguistic unit. We contrast *lexical lexemes* and *grammatical lexemes*, as well as *lexical morphemes* and *grammatical morphemes*. *Bound morphemes* are "smaller" than the lexeme, subordinate to the lexical item: they are mainly constituents of a lexeme. We also distinguish between *morphemes* and *grammatical elements*, since only morphemes are meaningful elements, while grammatical elements are simply morphological sequences, recognized as such by the speech community, but lacking any synchronic function.

11. The term *complexeme*, suggested by the volume editors, is used in this chapter as an equivalent to Pottier's Fr. *lexie complexe* for a lexicalized sequence of several words functioning as one and the same semantic and syntactic unit. For example Pottier (1997: 7) quotes as *lexies complexes* (functioning as quantifiers 'a lot of'): Fr. *une foule de, un tas de*. The concept is close to Lyons' (1977) *phrasal lexeme*, or more precisely *phrasal verb* or *phrasal noun*.

– Fr. *aujourd'hui* (from *au jour d'hui*, *hui* from Lat. *hodiē* 'today'),[12] Lat. *hodiē* 'today',[13]
– Gk. σήμερον 'today' (or τήμερον in the Attic dialect; from the deictic pronoun-adjective **ki*- used for proximity and the noun 'day' ἡμέρα with a transition to the neuter gender).
– Eng. *nowadays* 'at the present day' (from ME *now* (adverb), *a* (preposition 'on, to'), *day* (noun)),
– Ger. *heutzutage* 'nowadays' (from *heute* (adverb 'today'), *zu* (preposition 'to'), *tage* (noun 'day')) ,
– Fr. *de nos jours* 'in our time', '(lit.) in our days'.

Agglutination is also usual in every word category, especially in the formation of adverbs, prepositions, subordinators, and coordinators in ancient and modern Indo-European languages.

– Eng. *to-gether, in front of, as far as, there-fore, never-the-less,* etc.;
– Fr. *en même temps, en face de, (pour) autant que, de ce fait, néan-moins,* etc.;
– Lat. *id-circō, praeter-eā, eō-modō, quō-modo, nihilō-minus*, etc.

1.2.2. Lexicalization (freezing) and lexemization

Like grammaticalization, lexicalization[14] is a process of freezing and rigidification. Lexicalization denotes the entrance into the lexicon of a linguistic

12. At a low level of spoken French, cyclic renewal means that we may now even hear Fr. *au jour d'aujourd'hui.*
13. The Lat. adverb *hodiē* is the shortening (short *o* from long *o*) of **hō–diē*, with agglutination and case freezing of a previous syntagm containing the deictic adjective **hō* (used for entities belonging to the speech situation) in the ablative-locative singular and Lat. *diēs*, the noun meaning 'day', frozen in the same case. This is a better explanation than *ho-diē* as an inherited compound with *ho-* as the bare stem of *hic*, *haec*, *hoc*, since this kind of compounding, although it is productive in other Indo-European languages (Sanskrit, for example), is not documented in Latin.
14. Fruyt (2008a: 53–59, forthcoming a, d). We use the concept of "lexicalization" here in its meaning most generally accepted by lexicologists (cf. Marchello-Nizia 2006: 99 § 3.6.), i.e., a kind of freezing and entry into the lexicon of a new item (or a constituent item) that was previously "free". We recognize, however, that the concept of "lexicalization" and the word itself have been used in several different ways. For Ramat (1992: 550), for example, "lexicalization is … an aspect of degrammaticalization"; for Lehmann (1989, 1995, 2002), lexicalization constitutes entry into the lexicon of a given language, in con-

element that did not previously belong to the lexicon. Therefore it often coincides with the creation of a new lexical item, which we call *lexemization*. Grammaticalization may also create new lexemes, but they are grammatical lexemes – and not lexical lexemes.

The freezing of an inflected form of an adjective, generally expressing a quality and frozen in the ablative-instrumental masculine or neuter singular, into an adverb, as in *continuus, -a, -um* ‘continuous’ → *continuō* ‘in a continuous way, immediately next to’, is a very ordinary situation in Latin. *Continuō* as an adverb is a full lexeme, while the ablative singular of the adjective was only a lexeme form. This change involves a lexicalization and also a lexemization, with the creation of a new lexeme from what was only a lexeme form inflected in a specific case.

A good example of an inflected form frozen (lexicalization) into a new item (lexemization: the entry of a new lexeme into the lexicon) with a reanalysis is the ablative of the archaic adjective *mānis, -e*. It is frozen into an adverb *mānī / māne* ‘early in the morning’. This freezing is a lexicalization. Its consequence is a lexemization, and this also constitutes a case of grammaticalization, since there is a rigidification of a lexeme form.

1.2.3. Demotivation and reanalysis

Lexicalization, grammaticalization, and agglutination may all destroy structure and fuse items, with a result that may often be an unanalyzable whole. The speaker is then no longer conscious of the initial formation or of the previous function of the linguistic elements. Therefore, the speech community may reanalyze the sequence into a new sequence with a new motivation.

Reanalysis[15] is the assignment of a new structure to an existing substance. It is usually correlated with a demotivation process and is usually underlined by preexisting factors that belong to several domains. Many reanalyses are

trast to grammaticalization, which constitutes entry into the grammar. See also Traugott (1996).

15. Lehmann (1985, 1991, 2002, 2004); Fruyt (1990, 1998a, 1998b, 2000, forthcoming c, d). The role played by reanalysis has sometimes been disputed in studies dealing with grammaticalization, since reanalysis does not always occur in instances of grammaticalization (Haspelmath 1998; Marchello-Nizia 2006: 45). But reanalysis is definitively a fundamental element in linguistic change. It is interdependent with other fundamental

based on semantico-referential factors, and some only on morphological or morphosyntactic factors.

Reanalysis may change grammatical structure when a specific case of reanalysis is generalized to the whole speech community.

After a demotivation and a reanalysis, Latin has grammaticalized several ancient particles that were previously integrated into the stems of endophoric and deictic lexemes. For example, Lat. *ipse* (fem. *ips-a*, neut. *ips-um*) is derived from the agglutination of a free lexeme **pse* (an enclitic reinforcing particle) placed after the anaphoric pronoun-adjective *is* (fem. *ea*, neut. *id*). The particle **pse* was then reduced to a grammatical element *-ps-*, which underwent a process of demotivation. A reanalysis of the morphological structure of the word then followed. Subsequently there was a change in the position of the inflectional ending, which was transferred to the end of the word, as is usual in Latin nominal declension. A clue to the origin of this process is to be found in the occurrences in Plautus of old forms such as *ea-pse* for the feminine nominative singular, where the inflectional ending is still part of *is*, the first element of the word. The whole sequence was felt to be one single lexical unit. The morpheme boundary between *is-* and *-pse* has disappeared as well as the awareness of the existence of a particle *pse*, which is demotivated and incorporated into the first element *is*. But there has not been a total desemantization of the particle *pse*, since *ipse* functions as a reinforcement of *is* for a strong anaphor and sometimes as a focalizer. Some of the original sense of the particle *pse* probably still exists in the pronoun *ipse*.

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notions, such as analogy and the speaker's perception or consciousness of the system and functioning of his own language. The many studies of historical lexicology corroborate this central role played by reanalysis; it covers, among other domains, what is usually called *folk etymology*, Fr. *étymologie populaire*, Ger. *Volksetymologie*, and sometimes *synchronic etymology*, Fr. *étymologie synchronique*. The notion of "folk etymology" – a term often used by scholars to depreciate the phenomenon as a nonscientific process – has been restored to its rightful place by Chambon (1986; 1978–2002), who interprets it as a reanalysis carried out by the speaker and by the speech community. A survey of the notion of synchronic reinterpretation is to be found in Chambon and Lüdi (1991). Hagège (1993: 61–63) also gives a definition of reanalysis showing the importance he assigns to this concept in explaining linguistic change and what he calls *morphogenesis*.

1.2.4. Analogy

Analogy[16] is the transfer of a preexisting productive pattern to a new situation: it is the extension of a pattern. It is based on a perception and analysis of the linguistic system and structure by the speaker: the pattern according to which the analogy takes place is active in the linguistic competence of the speech community. And it is exported elsewhere when a common point is recognized between the prototypical situation where the reference pattern occurs and a new situation. This transfer is based on the recognition of a certain kind of similarity between two elements or two situations.

Thus the speech community is (more or less)[17] aware of the preexisting structure that is going to be reproduced during the analogical process, and some members of the speech community[18] are even aware, on a metalinguistic level, of the analogical process itself.

The fact that analogy presupposes a preexisting structure and, in a way, is under the control of the speech community (or part of it) highlights two important features that distinguish analogy from grammaticalization.

Theoretically, analogy creates only a new occurrence of a preexisting structure, but often it also changes the structure itself and induces new developments.

The consequences and the effects of analogy may be the increase of grammatical regularity and the decrease or elimination of irregular forms.

This is particularly true in Latin, since it has a tendency to develop regular verbal and nominal paradigms. Even a Latin grammarian such as Varro praises the phenomenon he calls *analogia* 'analogy'[19] for the creation of Latin morphological paradigms and of words/lexemes.

For example, in the nominal paradigms of the third declension, which did not have the same number of syllables for all cases and particularly which

16. For the role and linguistic nature assigned to analogy by Meillet and Saussure, see n. 8. Analogy is nowadays usually recognized as a very efficient stimulus of linguistic change: cf. Hock (2003).
17. Depending on the degree of linguistic sophistication of the members of the speech community.
18. Those who possess more grammatical and linguistic awareness.
19. Which is not exactly what we call *analogy* nowadays, but is similar as far as morphological and paradigmatic regularity are concerned.

had a “short” nominative singular (containing one syllable less than the other cases in the singular), there was a tendency – especially in the archaic period and in the spoken language – to create a new analogical form for the nominative singular containing the same number of syllables as the genitive singular, etc. Instead of *bōs* (nom. sg.), we find an analogical *bouis* in Varro (*Men*. 3) and Petronius (62,13). In Ennius (*ann.* 64) in the archaic period, instead of *Iūpiter* (nom. sg.), we find an analogical nominative *Iouis*, created along the lines of acc. *Iou-em*, gen. *Iou-is*, dat. *Iou-ī*, abl. *Iou-e*.

Analogy was fundamental in the construction of the inflection of the neuter noun *iter* ‘way, road, travel’. Whereas the inherited genitive should be **it-in-is*,[20] the archaic genitive *iter-is* (Naev. *trag*. 38; Acc. *trag*. 627) is an analogical form based on the nominative *iter*; and the usual genitive *it-in-er-is* combines the inherited *-in-* morpheme and the analogical *-er-* morpheme. From this genitive form was created the analogical nominative *it-in-er* (Enn. *trag*. 383; Acc. *trag*. 457; Plaut. *Merc*. 913; Lucr. 6,339), so that there would be a regular relationship between the nominative and the genitive: nom. *itiner*, gen. *itiner-is*. In such cases, analogy tends to create regularity in otherwise irregular paradigms.[21]

Analogy also plays an important role in the lexicon, and more precisely in word formation, suffixation, and compounding. This is well documented in Latin within those areas that are productive in creating new lexemes. Most lexical creations in Latin texts are words that were possible since they are created using the productive patterns and “rules” or “word-formation relationships” of the language.

This is even the case for the lexical innovations found in the direct speech of Petronius’s freedmen: the hapax *ne-sap-ius* ‘ignorant’, for example, is the result of at least the three following preexisting productive relations:

20. Since it belongs to the heteroclitic declension of the neuter nouns in **r/n*, a morphological type still productive in Hittite.

21. The productivity of the first conjugation in long *a* (type *amā-re*) is mainly due to its higher degree of regularity compared to other morphological types: the perfectum stem was built on the infectum stem by the simple addition of a consonant *-u-* (infectum *amā-* vs. perfectum *amā-u-*). The position of the word accent is steadier in the *-ā-* conjugation and varies less than in the other conjugations, as can be seen in the derivatives in the Romance languages.

(a) the replacement of *scīre* ‘know’ by *sapere* as a verb of knowledge in low spoken Latin (confirmed by the Romance derivatives);
(b) the *-us* (with just the thematic vowel **-o-*) or *-ius* (with the **-yo-* suffix) adjectival suffix attested in *scius* ‘(lit.) who knows’, active formation built on the Latin “synchronic root” or “radical” *scī-* (as *sci-us*) or possibly *sc-* (as *sc-ius*), which is also the stem of the verb *scī-re* ‘know’;
(c) the existence of the productive negative morpheme *ne-*, attested for example in *ne-scius* ‘who does not know, ignorant of’.

Therefore *ne-sap-ius* is only the result of the substitution of the radical *sap-* for the radical *sc(i)-* benefiting from a type of synonymy, and keeping the same prefix and suffix.

Grammaticalization may interact with analogy. There is “morphologization” when a new element enters a preexisting morphological class and takes on the morphological features of that class (for example, when the inflection of the Latin reflexive pronoun *sē* was created in Latin following the model of the inflection of the personal pronouns *ego* and *tū*).[22] In that case, grammaticalization is not responsible for the creation of an irregular new item, but, on the contrary, it is instrumental in creating a regular paradigm.

1.3. The different kinds of process referred to as grammaticalization

The processes called *grammaticalization* (when a new linguistic element comes into the grammatical area of a given language) are actually quite varied.[23]

We have seen some cases of grammaticalization where a syntagm, a sequence of several words, is frozen into one and the same lexeme (Eng. *nowadays*). Grammaticalization here is the result of agglutination.

22. In Latin, the reflexive pronoun *sē* was probably morphologically remodeled on the basis of the preexisting declensions of the personal pronouns; *sē* was created on the model of accusative and ablative *mē, tē*; *sibi* was created on the datives *tibi* and *mihi* – if we admit the hypothesis that *mihi* comes from Lat. **mibi* with a dissimilation of labiality as an influence of initial *m-* on internal **-b-* (or as a dissimilated **meg^{h}ei* from **meb^{h}ei*: Meiser 1998: 157).
23. Fruyt (1998a, 2008a: 49–53, 57–60). For further details, see Marchello-Nizia (2006:15–16, 18–19).

We have seen some cases of grammaticalization where an inflected form is frozen into a new item with reanalysis (the ablative of the archaic adjective *mānis*, *-e* was frozen into the temporal adverb *mānī / māne* 'early in the morning'). Grammaticalization here is a case of lexicalization.

And finally, we have seen what can be called "morphologization" (where a lexeme enters a preexisting morphological class and aligns itself on the preexisting items belonging to that class) with the creation in Latin of a full paradigm for inherited *sē* (reflexive pronoun). Here morphologization has been combined with analogy.

On the other hand, grammaticalization may also operate in a *vacuum* in the sense that it may create a grammatical category which has no prior model in the language. The creation of the system of articles in the Romance languages is an example of this, as well as the creation of the obligatory personal pronouns in subject position in French.

1.4. Grammatical lexemes in Latin

Grammaticalization is concerned with bound morphemes such as verbal and nominal inflectional endings, as well as with grammatical lexemes. These grammatical lexemes are mainly relators: prepositions (postpositions) and relational adverbs, subordinators, coordinators, connectors, endophoric and deictic pronouns-adjectives-adverbs, personal pronouns and possessive adjectives, relative pronoun-adjectives, illocutionary adverbs, speech particles, focalizer lexemes, etc.

The so-called *adverbs* of Latin (and other Indo-European languages)[24] are in fact not a homogenous category, neither on the morphosyntactic nor on the semantic level. They are very often only defined negatively, as lexemes that do not belong to the main categories such as verbs, nouns, or adjectives. The second criterion for defining adverbs is the fact that, within the lexicon of an inflectional language, they show no sign of inflection.

Among the Latin lexemes usually called adverbs, from a grammaticalization point of view we can distinguish several subgroups which are more or

24. For the diversity of the adverbial category and attempts at definition see Touratier (1994: 12); Cuzzolin, Putzu, and Ramat (2006); Ramat (2008: 13–14).

less grammatical. The Latin adverbs derived from quality adjectives – such as *fortis* (adjective) 'courageous' → *forti-ter / fort-iter* (adverb) 'in a courageous way' – are lexical lexemes since they display various semantic features and most of them are gradable (i.e., they have a comparative and a superlative form).[25]

Some Latin "adverbs" are lexico-grammatical lexemes: for example most temporal and spatial adverbs, as well as the prepositions and all relators. While the subordinators *ut* and *cum* may be considered fully grammatical lexemes, other subordinators such as *quoniam* (expressing causality), *sī* (expressing hypothesis and causality), *quamuīs*, and *quamquam* (expressing concessivity) are only lexico-grammatical, since they contain semantic features that are significant for the understanding of the semantic structure of the sentence.

When transcategorizations occur between coordinators and subordinators (and vice versa) among these lexico-grammatical lexemes, it is difficult to decide which transcategorization is a case of grammaticalization. Is a subordinator a more grammatical lexeme than a coordinator or another kind of adverb?

The Latin subordinator *sī* 'if' derives from the reanalysis of a correlative structure, where it was not a subordinator, with two clauses linked syntactically and semantically: **sei* ..., **sei-ce* ... 'in these conditions ..., in these conditions precisely...'.[26] In temporal clauses, *simul atque* functions as a subordinator, although it was originally a coordinator, and it is still motivated as such. The reanalysis probably occurred in sentences such as: '(x) AND at the same time (y)' (coordination) ⇒ '(x) at the same time AS (y)' (subordination). This can be considered a case of grammaticalization, since it creates a subordinator (cf. Section 1.5.2).

25. It is difficult to decide whether these adverbs that possess a lexical meaning (*fortiter*) and are derived from lexical adjectives denoting a quality are more "grammatical" than the adjectives that they derive from. In such cases, is the adverbial category more "grammatical" than the adjectival? The adjective and the related adverb could actually be considered similar from a grammaticalization point of view, since they share the same semantic features even if they do not fulfill the same syntactic functions.

26. Fruyt (2004, 2005b, 2005c).

But can we also consider the case of reverse transcategorization as grammaticalization?

Conversely, the correlative pair *cum* . . . , *tum* . . . 'when . . . , then . . . ', made up of a temporal subordinate clause and a main clause, has become a coordinator between two nominal groups: 'not only x, but also y, x and y' (cf. Section 1.5.2). In the same way, the subordinator *quasi* 'as if', with a counterfactual sense, may also introduce a nominal syntagm or an adjective, especially in Late Latin (Apul. *apol.* 4,13: *crimen quod illi* ***quasi capitale*** *intenderunt*).

1.4.1. Frequency

Frequency may be a significant criterion for the evaluation of the position of the various lexemes in the opposition grammatical vs. lexical lexemes.[27]

In the list of Latin lexemes established by the Laboratoire d'Analyse Statistique des Langues Anciennes de l'Université de Liège (LASLA) in decreasing order of frequency,[28] the grammatical lexemes have a tendency to appear at the beginning of the list.

According to the LASLA,[29] the 65 Latin lexemes that display the highest frequency are, in decreasing order of frequency: *et*, *sum* (full verb), *quī*, *in*, *-que*, *nōn*, *hic*, *is*, *ille*, *ad*, *suī* (reflexive pronoun), *tū*, *sed*, *omnis*, *sum* (auxiliary), *quis* (interrog.), *sī*, *ego*, *ab*, *ut* (subordinating conjunction), *nec*, *possum*, *ipse*, *ex*, *cum*, *suus*, *aut*, *magnus*, *quam*, *faciō*, *rēs*, *ac*, *dīcō*, *dō*, *habeō*,

27. Frequency is a very valuable clue for evaluating the role of items in a given language. Mańczak (1958, 2008) has shown the correlation between morphological irregularity and frequency: the irregular forms belonging to the paradigms of very common verbs (for example Fr. *je suis*, *tu es*; *je vais*, *j'allais*, *j'irai*) were maintained as such (and not regularized), because of their high frequency that resulted in successful acquisition of the form by each member of the speech community. This could be applied in Latin to the verbal paradigms displaying suppletion: *sum*, *es*; *sum*, *fuī*; *ferō*, *tulī*; etc. More recently, some studies dealing with grammaticalization have reinstated frequency as an indicator for grammatical lexemes and grammaticalization processes (Bybee, Perkins, and Pagliuca 1994; Bybee and Hopper 2001a, 2001b; Bybee 2003: 602–623; for further details on previous works, see Marchello-Nizia 2006: 75).

28. This list drawn up by the LASLA (Delatte et al. 1981) would indicate that the Latin lexicon seems to confirm "Zipf's Law".

29. Delatte et al. (1981: 119).

alius, *uideō*, *per*, *animus*, *cum* (preposition), *atque*, *multus*, *iam*, *dē*, *enim*, *īdem*, *nihil*, *nōs*, *nūllus*, *rēx*, *meus*, *tuus*, *inter*, *locus*, *etiam*, *deus*, *quod*, *ūnus*, *ferō*, *pars*, *diēs*, *tamen*, *uolō*, *bonus*, *ut* (relative adverb).

The first lexemes on the list are obviously grammatical: *et* (coordinator), *quī* (relative pronoun and adjective), *in* (preposition), -*que* (coordinator), *nōn* (negation), the endophorics and deictics: *hic, is, ille, ad* (preposition), etc.

The first lexical terms that appear in the list are *omnis* 'all' (14th) and the adjective *magnus* 'big , large' (28th). Both are quantifiers, so that they may be considered close to being grammatical items.

The first verbs on the list are *sum* as a full verb (a copula and an existential verb, in second position), *possum* (a modal verb), *faciō*. But the first verbs which really have a lexical meaning are *dīcō* (33rd), *dō* (34th), *habeō* (35th), *uideō* (37th).

The first lexical noun is *animus* (39th), then *rēx* (50th), *locus* (54th), *deus* (56th). These lexical items occur in the list among grammatical items.

The most frequent Latin lexemes also have a tendency to be "short" compared to the rest of the lexicon; that is, they have no more than 1 or 2 syllables. On the other hand, the lexical items arrive further down the list and generally have 2, 3, or 4 syllables.[30] Lexemes with 5 syllables in the nominative singular are rare in Latin and they usually have a lexical meaning.

These indications given by frequency of occurrence for the grammatical status of some lexemes are generally confirmed for most of them by other, morphological features.

1.4.2. Morphological features

A subgroup of Latin lexemes displays certain specific morphological features showing that they are situated in an intermediate position between lexical and grammatical lexemes. More specifically, they were originally treated as grammatical lexemes, although there was a tendency, as the language developed, to give them the morphological features of "normal" lexical lexemes.

30. In the nominative singular or the first person present indicative. These forms are the forms of the lexeme that have been selected by grammatical tradition to function as the distinctive "labels" of the lexeme. But the lexeme is actually the whole range of its lexeme forms.

This is the case for the class of words that maintained their specific inflectional endings[31] in the gen. sg. masc., fem., neut. (in *-ius*: *illius*, *istius*, *huius*, *eius*, *cuius*, *alius*, *tōtius*), in the dat. sg. masc., fem., neut. (in *-ī : illī*, *istī*, *huī-c*, *eī*, *cuī*, etc.), and sometimes in the nom. sg. masc. (in *-e*: *ille*, *iste*, or *-ī*: *quī*).

These lexemes are mainly the relative pronoun-adjective (masc. nom. sg. *quī*, gen. sg. *cuius*; dat. sg. *cuī*), the interrogative pronoun-adjective (nom. sg. masc. *quis* pronoun / *quī* adjective, *cuius*, *cuī*), the endophoric and/or deictic pronoun-adjectives (*is*; *hic*; *iste*; *ille*), the endophoric and/or focalizer *ipse* ('self'-pronoun or adjective), *alius* 'other', *sōlus* 'one only, alone', *tōtus* 'whole, entire', *ūnus* 'one, unique', *nūllus* 'no … ' / 'nobody, nothing, etc.'.

These morphological features set these lexemes apart from the lexical lexemes, and we prefer to consider them full grammatical lexemes. But because they have the same morphological features, we could also consider the five quantifying adjectives *nūllus*, *tōtus*, *sōlus*, *ūnus*, *alius* to be grammatical lexemes. *Vnus* 'one' is certainly a special numeral, which means that it belongs to this subgroup of grammatical lexemes that possess common morphological properties. The other numerals, since they are a type of quantifier, probably belong to a category different from that of the lexical lexemes. They probably also have an intermediate position as a lexico-grammatical group within the Latin lexicon.

1.5. The relationships between grammaticalization, agglutination, and lexicalization

1.5.1. Co-occurrence and interaction between grammaticalization, agglutination, and lexicalization

As we have seen in Section 1.2, grammaticalization may co-occur with agglutination and lexicalization (which are very frequent processes).

We could even say that every case of agglutination or lexicalization is a case of grammaticalization, since any agglutination of several words into

31. Fruyt (forthcoming b).

one single word is, by definition, a downgrading for the lexemes that become constituents, and also since lexicalization involves a morphological freezing, which is, by definition, a reduction of the morphosyntactic variation potential of a given word, and therefore of its autonomy.

1.5.1.1. Agglutination and lexicalization at the same time. Agglutination and lexicalization have occurred so frequently in the construction of the Latin lexicon that we mention here only the principal situations in which they occur. We concentrate first on the cases when they occur at the same time, a conjunction of two or more factors that lead to grammaticalization. The examples of lexicalization often preserve the only remnants of archaic forms that have disappeared as productive linguistic elements, as illustrated below.[32]

The temporal lexeme *nū-diūs-tertius* or *nū-diūs tertius* (Cic. *Att.* 14,11,1) 'the day before yesterday' (lit. 'now is the third day') results from the agglutination of three words that underwent a downgrading and became three constituents of a single lexeme.

The second element *-diūs-* is a lexicalized and frozen form of the noun meaning 'day': it represents an archaic nominative singular from **dy-ēw-s*, which represents the Indo-European root **dy-ew-* 'daylight' followed by the nominative singular ending *-s*. Thus **diūs* would have been the nominative of the Latin lexeme, if the Latin lexeme for 'day' had not been reshaped on a stem *diē-*, derived from the inherited accusative **diēm* (> *diem*) from Indo-European acc. sg. **dyēm*.

The first element *nū-* is also lexicalized and can be synchronically associated only with the temporal adverb *nunc* 'now', where it is followed by the deictic particle *-ce*.

The only "free" unfrozen element in this word is the third element *-tertius* 'third' (an ordinal numeral), with a paradigmatic variation: *nūdiūs-quintus* or *nūdiūs quintus* (Plaut. *Truc.* 509) 'four days ago' (lit. 'now is the fifth day').[33]

A second example of the freezing or lexicalization of an inflectional ending and the agglutination of a syntagm containing a noun and its determiner

32. Fruyt (forthcoming a).

33. These words may be used as determiners of *diēs* 'day': *recordamini qui dies nudius tertius decimus fuerit* (Cic. *Phil.* 5,2) lit. 'remember what day was the thirteenth day from now'.

in the genitive is *pater familiās*. The final ending *-ās* is lexicalized; it is out of use and no longer “active”. This old inflectional morpheme of the genitive singular of the first declension *-ās* (the productive functional morpheme is *-ae*) survived precisely because it was out of use and was no longer an active morphosyntactic morpheme.

1.5.1.2. Agglutination and the creation of new lexical items. Agglutination is productive as a word formation process in Latin – sometimes as a substitute for certain compound structures that Latin had not developed – as well as in the other Indo-European languages.[34]

In Latin, agglutination created many non-inflected terms (adverbs in the widest meaning of the term, including prepositions, particles, connectors, and subordinating conjunctions), as well as many nouns, verbs, and adjectives, as illustrated by the following examples:

- verbs: *animum aduertere* > *anim-aduertere*, *uēn-īre* ‘to be on sale’ (< *uēnum īre*) and *uēn-dere* ‘to sell’ (< *uēnum dare*), *necesse est* ‘it is necessary to’, *nequīre* ‘not to be able to’, *manū mittere (manū-mittere)*;
- nouns: *agrī cultūra* > *agrī-cultūra*, *rēs pūblica*, *senātus-consultum*, *ūsus-fructus*, *iūs iūrandum* and the lexeme form of the vocative and nominative singular *Iūpiter* (< **Iū pater*);
- adjectives: *uērī-similis*, *ob-ui-us* (from the adverb *ob-uiam* < *ob uiam*);
- adverbs: *sēdulō* < **sē dolō*, *prō-fectō* < **prō factō*, *ho-diē*, *merī-diē*, *postrī-diē*; *inter-eā*, *per-inde*; *eō-modō*, *magn-opere*;
- subordinating conjunctions: *quō-modo*, *quā-rē*, *quam-ob-rem*. As is shown by *quasi* ‘as if’ (for a counterfactual event), formed by the agglutination of *qua(m)* and *sī*, a subordinator that usually introduces a verbal syntagm may also introduce a nominal syntagm (which is a downgrading), and especially an adjective in Late Latin (Apul. *apol*. 4,13: *crimen quod illi* ***quasi capitale*** *intenderunt*).
- numerals: *ūn-decim* ‘eleven’, *duo-decim* ‘twelve’, *trē-decim* ‘thirteen’, *duo-dē-uīgintī* ‘eighteen’, *ūn-dē-uīgintī* ‘nineteen’.

34. Fruyt (1990, 2005a). This productivity has been inherited by the Romance languages.

1.5.2. Grammaticalization occurring without agglutination

There are cases of grammaticalization that do not involve agglutination,[35] as in the transcategorization of the modal verb *licet* 'it is permitted, allowed to', expressing possibility and permission, when, in post-Classical and Late Latin, it became a concessive subordinating conjunction meaning 'although'.

The semantic evolution according to which a verb denoting a concrete process became a modal verb is a case of grammaticalization, since modal verbs are lexico-grammatical, if not grammatical, lexemes, and they are often involved in grammaticalization processes. The modal meaning of the verbs *dēbēre* and *licēre* comes from a semantic evolution; *dēbeō*, from **dē-habeō*, probably at first meant 'to have a debt toward someone, to owe something to someone', denoting an obligation in the legal sense of the term. It then developed to mean any kind of obligation with a deontic meaning. The impersonal *licet* comes from the personal *liceō* 'to be on sale, to be available'. From this concrete meaning, it developed semantically to possibility, and later on to permission.

Autonomy is a good criterion for describing the evolution of *licet* from a modal verb to a concessive conjunction. The modal verb *licet* definitely had more morphological, syntactic, and semantic autonomy than the concessive subordinator *licet* + subjunctive 'although', which is used only in very precise syntactic and semantic circumstances.

Another example of grammaticalization without any agglutination is the freezing or lexicalization of a nominal inflected form, such as the temporal adverb *uesperī* 'late in the day, in the evening', which comes from a frozen locative form of the noun 'evening' (*uesper*).

The use of *sī* as a subordinator is probably a case of grammaticalization in a correlative sentence containing two clauses introduced by **sei . . . , sei-ce* . . . 'in these conditions . . . , in these conditions precisely. . . ',[36] which gave: *sī . . . , sīc* . . . 'if . . . , then . . . '. *Sei* is originally the locative singular of the Indo-European endophoric stem **so*, in complementary distribution with **to-* (cf. Section 1.4).

35. Fruyt (forthcoming a); Moussy (2011) on the numeral *secundus*.
36. Fruyt (2005b, 2005c).

Another case of grammaticalization without agglutination could be the downgrading of a subordinator. The correlative pair *cum …, tum …* (subordinate clause + main clause) may also be used as a kind of coordinator between two noun phrases: *cum …, tum …* ‘not only …, but also …’ (cf. Section 1.4).

Latin *uel* ‘or’ is a usual coordinator, but it is already mentioned by Meillet (1912, 1921)[37] as a case of grammaticalization, since it comes from the 2nd person singular of the present indicative of the verb *uolō* ‘want’, as ‘you want’ (probably with the following phonetic evolution: **uel-si* > **uelli* > **uell* > *uel*) or from the imperative form (2nd sg.) of the same verb. This morphosyntactic evolution took the form of a lexicalization (freezing) of an inflected verbal form. The result was a new lexical item or lexeme, a “lexemization”. Since all coordinators are grammatical lexemes, while modal verbs are only lexico-grammatical lexemes, the degree of grammaticalization increased in the creation of *uel* ‘or’. Meillet saw a total de-semantization in this process, and this change might also be considered to involve a decrease in degree of autonomy.

2. Methodological considerations

2.1. Latin and grammaticalization: Fertile ground

Latin provides very fertile ground for studying grammaticalization, since it is attested over a very long period of time from Archaic (the very first inscriptions in the 8th or 7th century BCE) to Late Latin (Gregory of Tours in the 6th century or Fredegar in the 7th century CE), and since it extends into the Romance languages and even into the various creoles of the Romance languages.

From a diachronic point of view, the Romance languages must be considered evolved forms of Latin. They belong to the same linguistic continuity as

37. “Les origines des conjonctions sont d’une diversité infinie, on le sait. Il n’y a pas d’espèce de mot qui ne puisse livrer des conjonctions. Le verbe même en fournit, comme lat. *vel, igitur* ou *licet*” (Meillet 1921: 169).

Latin, even if they have diverged from one another and have different names. When studying cyclic renewal, for example, linguists should take into account not only the phenomena attested in Latin, but also those attested in the Romance languages. So we have here an immense field for the observation of attested linguistic data, not just reconstructed data. The existence of texts stretching from Archaic Latin to the contemporary Romance languages constitutes a unique opportunity for linguistic analysis.

2.2. Grammaticalization according to Meillet

The most enlightening examples used by Antoine Meillet when he created the concept of grammaticalization were taken from Latin and Romance (mainly French) sources. The word *grammaticalization* itself is an adaptation of the French *grammaticalisation*, created by Meillet. It should therefore be interesting to see what Meillet himself said about grammaticalization in Latin.

2.2.1. The creation of the words grammaticalisation*,* se grammaticaliser

A. Meillet created the French word *grammaticalisation* in 1912 in an article entitled "L'évolution des formes grammaticales", reprinted in his 1921 book *Linguistique historique et linguistique générale*. A second article, focusing on the formation of coordinating and subordinating conjunctions, followed in 1916, a summary of his lectures at the École Pratique des Hautes Études in Paris during the year 1915–16. The text was also reprinted in his 1921 book: "Le renouvellement des conjonctions". The passages where the noun *grammaticalisation* and the verb *se grammaticaliser* occur for the first time are:

> Tandis que l'analogie peut renouveler le détail des formes, mais laisse le plus souvent intact le plan d'ensemble du système existant, la « grammaticalisation » de certains mots crée des formes neuves, introduit des catégories qui n'avaient pas d'expression linguistique, transforme l'ensemble du système. ([1912] 1921 : 133)
>
> La valeur expressive de l'ordre des mots, que l'on observe en latin, a été remplacée par une valeur grammaticale. Le phénomène est de même ordre que la « grammaticalisation » de tel ou tel mot. (ibid. 148)

> Par l'effet de la répétition qui en a atténué progressivement la valeur expressive et en a fait oublier la signification propre, l'élément qui figure à la jonction de deux phrases tend à devenir un simple outil grammatical : il se « grammaticalise » pour ainsi dire. Le sens initial de l'élément devient chose à peu près négligeable et sans conséquence pour le développement ultérieur. L'exemple typique de ces « grammaticalisations » résultant de l'emploi de certains mots dans la phrase est le cas bien connu des mots français adjoints aux phrases négatives, *pas*, *point*, *rien*, *personne*, *jamais*, …. ([1916] 1921 : 169)

The fact that Meillet cautiously puts these two words (*grammaticalise*, *grammaticalisation*) into quotation marks and uses the expression *pour ainsi dire* 'as it were' shows that he was aware of coining new words and thus of creating a new linguistic concept.

In these two articles, he constantly opposes *les mots accessoires* and *les mots principaux* or *élément grammatical* and *mot autonome*; that is to say – in a more contemporary terminology – opposing "grammatical lexeme or morpheme" and "lexical lexeme" (a lexeme with a full lexical meaning).[38]

2.2.2. Meillet's Latin examples

The Latin examples quoted by Meillet are enlightening. In the first article (1921: 169), he presents the French negation *ne … pas* (*point*, *goutte*, *mie*, etc.) as one of the main prototypes of grammaticalization. But the Latin negation *nōn* also plays an important role in his demonstration (1921: 140). He describes it as the Indo-European negation **ne* (Skt. *na*, Slav. and Lith. *na*, Goth. *ni*) reinforced by the numeral 'one'; this is still our explanation today.[39]

Meillet mentions (1921: 142) the recreation of a new morphological form for the perfect, especially in the passive voice, Lat. *dictus est* and *dictum est*, a phenomenon that he also describes in Oscan-Umbrian and Celtic.

38. Meillet (1921: 139): "Le changement d'un mot en élément grammatical est accompli. … dégradation progressive de mots jadis autonomes".
39. The second important example quoted by Meillet is the evolution of the perfect tense. He considers that this tense, first used for a completed action and the result of the action, underwent a semantic "weakening" (*affaiblissement*), acquiring the same meaning as a present tense (1921: 141). This is attested in Lat. *meminī* 'je me souviens' (1921: 142).

Meillet also mentions the creation of the active type *habeō dictum* (= Fr. *j'ai dit*) '(lit.) I have said', a phenomenon that he dates to the beginning of the Romance languages. His interpretation of the original meaning of this construction is: Fr. 'je possède quelque chose qui est dit' = 'I own something which has been said', with a strong possessive meaning for the verb *habeō*.[40] He believes that it is only during the French period that Fr. *j'ai dit* lost its resultative perfect sense and was reduced to a preterite or aorist sense (1921: 143).[41]

As for the formation of future tenses from modal verbs meaning 'to want' (Fr. *vouloir*) or 'to have to, must' (Fr. *devoir*), Meillet asserts that the deontic meaning is responsible for the creation of the Romance future from Lat. *facere habēre*, which he translates by Fr. 'j'ai à faire', that is to say 'je dois faire' (> Fr. *(je) ferai*) (ibid. 145).

In his second article, Meillet deals with phonetic erosion. For conjunctions (and other word categories), he cites the reduction of their "phonetic volume" (Fr. "diminution de ce que l'on pourrait appeler leur « volume phonétique »" (1921: 164); "réduction des mots existants"). He notes (1921: 160–161) that the two Indo-European coordinating conjunctions **eti* and **k^{w}e* (represented by Lat. *et* and *-que*) disappeared during the development of the Indo-European languages for phonetic reasons, since they were too "light". He points out that there was a phonetic reduction from Indo-European **eti* to Lat. *et* and from Lat. *et* (pronounced with two phones) to Fr. *et* (pronounced with one phone only, [e]) (1921: 165).

He quotes two successive phonetic reductions for verbal forms: from **legeti* to Lat. *legit* in the present indicative, and from Latin to Fr. *lit* (pronounced with only two phones [li]). For nouns, he recalls that, since Lat. *ouis* would have given a monosyllabic word reduced to just one vowel in French, the word was reinforced in Late spoken Latin by a suffix, which led to Fr. *ouaille* 'sheep'.

40. He then investigates a possible influence of Latin on the similar construction in Germanic.

41. When dealing with the formation of future tenses, Meillet quotes Lat. *erit* 'he will be', *dīcet* 'he will say' as being derived from a previous subjunctive form, and which might be considered as a case of grammaticalization. This is still our explanation today.

Later on, in his second article, Meillet mentions the phenomenon by which the relative pronoun was replaced by the interrogative pronoun in several Indo-European languages (Slavic, Germanic). He believes that in Latin and in the Italic languages the distribution between the two stems *k^wo-* and *k^wi-* was settled in the period of Common Italic and has evolved differently in the other Indo-European languages (Meillet 1921: 168): "la différenciation de l'interrogatif lat. *quis*, osq. *pis*, ombr. *pis* et du relatif lat. *quī* (de **quoi*), osq. *pui*, ombr. *poi* est italique commune; dans d'autres langues la répartition de *k^wo-* et de *k^wi-* est tout autre".

Latin is also used by Meillet to show that verbal forms can produce coordinating conjunctions, as seen in Lat. *uel*, *igitur*, or subordinating conjunctions as in Lat. *licet* (1921: 169). He also mentions (1921: 170) the fact that, in several Indo-European languages, the same word can mean 'yes' and 'if'. Lat. *sī* had the meaning 'so' (Fr. 'ainsi'), which is also the meaning of Lat. *sīc* – since Lat. *sīc* is based on *sī* plus the *c(e)* particle – and *sīc* has taken the meaning 'yes' (It. *sí*). Meillet ascribes to Lat. *ut* the initial meaning 'as' (Fr. 'comme'). This word, being too "weak" (Fr. *faible*), has disappeared in the Romance languages for phonetic reasons (171). Meillet also uses Latin to illustrate the evolutions of the various words meaning 'or', which – according to him – easily undergo variation. He mentions that Lat. -*ue* was inherited and preserved by Latin, while Latin created three more coordinators: *aut*, *uel*, *sīue (seu).*

At the end of his second article is a passage that seems to go in the opposite direction to his preceding arguments. Meillet seems to say that there are some conjunctions – among the most frequent ones – that are stable and not subject to evolution. And he seems to relate this fact to a more general phenomenon, according to which grammatical lexemes or morphemes, in a given language, can possess a certain stability: "Les conjonctions indispensables à l'usage le plus courant de la langue et qui ont presque le caractère de particules grammaticales, comme fr. *et*, *ou*, *que*, *si*, participent assez largement à la stabilité qui caractérise les éléments grammaticaux du langage" (1921: 171–172). But he returns later on to the ideas he had developed previously: the lack of stability of conjunctions and their rapid evolution: "Au contraire les conjonctions à sens plus spécial et qui ont plus d'autonomie dans la phrase sont plus instables" (172).

Meillet (1921: 172) illustrates the swift evolution of conjunctions with the Latin words meaning 'but' (Fr. 'mais'): *at*, *ast*, *sed*, *uērum*, *uērō*, *autem*. None of these have survived in the Romance languages, where 'but' is expressed by a new word that meant 'more' in Latin ("un mot nouveau, dont le sens ancien était « plus »"): Lat. *magis* (It. *ma*, Fr. *mais*, Sp. *más*).

In order to illustrate the rapid evolution of certain word categories, Meillet (1921: 172) also looks at the Latin concessive conjunctions. He stresses, on the one hand, the large number of these: *cum*, *sī*, *etsī*, *etiam sī*, *tāmen etsī (tametsī)*, *quamquam*, *quamuīs* (to which he adds *licet*, which, according to him, appears in the Imperial period in the literary language, and this would show that it was already in use in the spoken language (172–173)). On the other hand, he notes that those conjunctions were not maintained in the Romance languages (173). His aim here is to show that there was a drastic change when the Latin lexical items disappeared and were replaced in the Romance languages by new lexemes.

Finally, Meillet describes another linguistic situation where several words originally having different meanings come to be used with the same meaning (173). He gives examples for 'if' involving Lat. *sī*, Oscan **svai**, *suae* and Umbrian **sve**.

2.2.3. Conclusion on Meillet's interpretation

Thus when Meillet created the words *grammaticalisation* and *se grammaticaliser*, he obviously meant the situation where a lexeme with a full lexical meaning becomes (totally or partially) a grammatical lexeme or even a grammatical bound morpheme.[42] But in his two articles, he also takes into account phonetic reduction or erosion, the functional (syntactic and semantic) convergence of lexemes, and the rapid evolution of conjunctions. And finally, we should note that his two articles were not entitled "Grammaticalization of conjunctions", but the titles contained the words *évolution* 'evolution' and *renouvellement* 'renewal'. This shows that Meillet had a wider perspective than

42. Meillet uses the word *dégradation*, probably best translated by Eng. *downgrading*. This English word has introduced the image of a "cline", as can be seen, for example, in the title of Fischer, Norde, and Perridon (2004): *Up and down the cline*.

just grammaticalization. His main theme, actually, was the linguistic evolution of grammatical lexemes and morphemes.

2.3. Grammaticalization after Meillet

Several linguists after Meillet have shown that lexical items can become grammatical items, and that grammatical lexemes and morphemes can become even more grammatical (Kuryłowicz 1965).

Even though language change had been studied earlier in many important linguistic works, such as Janson (1979), grammaticalization stimulated this field when, in the 1980s, the term and the concept "grammaticalization" were given a new lease on life and various theories were developed around them, mainly thanks to Lehmann's 1982 work *Thoughts on grammaticalization* (updated in his 1995 book with the same title). This was the beginning of an important topic of linguistic research which is still in the foreground today.[43]

This field of research has shown itself to be so promising that a regular series of colloquia has been instituted, most recently "Gramma 4" held in Leuven in 2008, while "Gramma 3" was held in Santiago de Compostela in 2005.[44]

The subject has been highly productive in recent years, to the extent that grammaticalization has become an integral part of other areas of linguistic research. For example, studies of grammaticalization have been integrated into the domain of cognition (see Hickmann and Robert 2006 and Robert 2003, where Roulon 2003, for example, combines grammaticalization with body parts and space denotation).

43. Cf. Traugott and Heine (1991); Traugott and König (1991); Hopper (1991, 1992); Heine, Claudi, and Hünnemeyer (1991); Ramat (1992); Hopper and Traugott (1993); Pottier (1997); Giacalone Ramat and Hopper (1998b); Hagège (2001); Wischer and Diewald (2002); Heine and Kuteva (2002); Heine (2003); Robert (2003); Fischer, Norde, and Perridon (2004); López-Couso and Seoane (2007); Seoane and López-Couso (2008). For further detail on the various works on this topic, see Joseph and Janda (2003); Marchello-Nizia (2006:18–24).

44. Published in López-Couso and Seoane (2007) and Seoane and López-Couso (2008).

Furthermore, some attempts have been made recently to combine grammaticalization with the notion of areal change and distribution (Drinka 2003; Giacalone Ramat 2007).

Grammaticalization has become an important element in the study of numerous languages in the world belonging to different families. We may quote in this context the recent studies on African languages (Robert 2003; Creissels 2003; etc.).

2.4. Degrammaticalization

Although a few linguists have defended the idea that degrammaticalization exists as a symmetrical, equal, and opposite counterpart to grammaticalization, the examples quoted do not have the same frequency or the same status as grammaticalization. Since Lehmann (1982: 19), the general opinion is that there are no cogent examples of degrammaticalization, so that most linguists agree with the principle of the unidirectionality[45] of grammaticalization.

Ramat (1992) quotes some cases that he calls *degrammaticalization*, such as the suffix *-ism* in English, German, or Italian that has been transcategorized into a noun[46] in Eng. *the isms*, Ger. *die Ismen*, It. *gli ismi*. But Pottier (1997: 14) prefers to speak of *lexémisation* rather than degrammaticalization in such cases, since the cases mentioned by Ramat involve an increase in the number of lexical items. In fact, they do not involve grammar, but are just transfers and transcategorisations within the lexicon of those languages: a new lexeme is created from a linguistic item that was not previously a lexeme; moreover the frequency of the phenomenon is not high enough to be compared with grammaticalization processes; and the phenomenon is the result of a conscious creation of the speech community (probably generalized in the speech community from a specific creation done by an individual person),

45. Haspelmath (2004).
46. We could add here the *-teen* ending in Eng. *thirteen*, *fourteen*, *fifteen*, *sixteen*, ... that became a compound noun constituent in Eng. *teenagers*. This cannot be considered an instance of degrammaticalization, since it is only a transfer within the lexicon.

while grammaticalization is not under the control of the speech community (cf. Section 1.1).[47]

Van der Auwera (2002, especially 20 and 24–25) also investigates the notion of degrammaticalization and attributes certain linguistic changes to it, asserting, for example, that reinforcement is a type of degrammaticalization.

Later in this chapter we conclude that certain linguistic changes and innovations can illustrate the opposite of grammaticalization. We do not, however, speak of *degrammaticalization*, since this term should be limited to very special cases when a previous case of grammaticalization is inverted or undone[48] at a later stage by what may be called a degrammaticalization process which returns it to the situation as it was before the grammaticalization process occurred.

2.5. The extension and the limits of grammaticalization

Although grammaticalization has provided a fertile topic for general and historical linguistics over the last twenty five years, some linguists have tried to show its limits.[49] It has been stressed that the concept may have been overextended as an explanatory factor for phenomena that could better be explained otherwise.[50] Moreover, recent studies have emphasized the fact that grammaticalization is only one of many factors involved in linguistic change (cf. Sections 1.1 and 1.2, and n. 8).

In this chapter we concentrate primarily on grammaticalization among the variety of processes involved in linguistic development, but we are also sometimes obliged to reflect whether a given occurrence of a linguistic change is or is not a case of grammaticalization.

This ambiguity is due to the fact that the borderlines of grammaticalization are not clear-cut. The notion of grammaticalization has probably been extended in too many directions since Meillet's creation of the concept. It is

47. Fruyt (2008a).
48. Haspelmath (1999).
49. Giacalone Ramat and Hopper (1998a); Giacalone Ramat (1998); Giacalone Ramat and Hopper (1998b).
50. For example Fruyt (1998a, 2008a).

itself the result of complex combinations of factors, which have been interpreted in a wide variety of ways.

2.6. Reconstructed and attested data; synchronic variations

Heine (2002: 84) complains about the fact that most processes of grammaticalization that have been studied so far are "buried in history" and "no longer historically clearly recoverable". Similarly, Lehmann (2004) would prefer that linguists study only those grammaticalization cases that are attested in the texts, without taking into account those that are discovered through reconstruction.

In this chapter, we essentially try to follow Lehmann's instructions, but we nevertheless occasionally have to look at some reconstructed data.

Since the Latin language is attested over a very long period of time (cf. Section 2.1), it offers us the unique opportunity to concentrate on special situations where the grammaticalization process can be seen in its very workings, while it is taking place.

But this means that we have to use a two-step approach:

(a) First, we try to determine the various stages that occurred in a given case of grammaticalization, usually involving a range of intermediate stages between the departure point and the final outcome. In some cases, we see that the final outcome had not yet been reached by the end of the Latin period,[51] so that Latin illustrates only the beginning of an emergent innovation, or an intermediate situation, with the final outcome often appearing only in the Romance languages. We must therefore acknowledge that some grammaticalization processes are very slow and only evolve over several centuries or millennia (in the same way as several other types of diachronic change).

51. For the distinction between the end of the Latin period and the beginning of the Romance languages, we follow the usual classification which fixes the first attestation of a text written in a Romance language in 842 CE (the *Oaths of Strassburg*, written in Old French). But although this classification seems to create a gap between Latin and the Romance languages due to the scarcity or lack of written documents in the intermediate period between the 7th c. CE (mainly Fredegar) and the 9th c. CE, in the spoken language there was in reality a continuum between Latin and the Romance languages.

(b) Second, we look for examples of synchronic variation where two or even several of the stages of grammaticalization appear in the same period of Latin, in one and the same author or even in the same work. Intermediate grammaticalization stages are characterized by the existence of variations where the decreasing and increasing structures co-occur. In these cases, word frequency may be a good clue for identifying the stage of evolution and the degree of grammaticalization already acquired by the new structure.

Such synchronic variation is usual with evolving phenomena, and the different developmental stages – the older and the newer – often co-occur in a given text. This pluralism is in itself a clue to the progression of the change in progress. Sometimes it may be possible to detect in one particular stage "the switch context stage, which can be held responsible for this process" (Heine 2002: 83), but grammaticalization change is in general a very slow and continuous process, without any obvious tipping points.[52] Nevertheless, there is sometimes a special context that provides the right conditions for a change and a reanalysis that are instrumental in the later development of a given evolution. The search for such cases of *metanalysis* (Fr. *métanalyse*) has been carried out, for example, for Fr. *n'importe* (as a free-choice morpheme) and for Fr. *avoir beau* (as a concessive morpheme) by Béguelin (e.g., 2002, forthcoming). We show below some similar examples in Latin.

2.7. A new look at grammaticalization in the light of the Latin texts

Although, as we have said, grammaticalization has been a major topic in general linguistics for the last twenty-five years, nevertheless the view of grammaticalization in Latin presented in this chapter is quite new. The Latin texts, however rich they may be, have not yet been thoroughly investigated in the perspective of a theoretical analysis of grammaticalization.

Moreover, since most work dealing with grammaticalization has tended to concentrate on the theoretical aspects of the phenomenon, our presentation

52. With the exception of some important historical events that may cause sociolinguistic and diatopic changes in the speech community.

of concrete data from texts across the whole Latin period will hopefully be instrumental in the renewal of scientific research in this area. Our empirical Latin data will corroborate or, in some cases, not corroborate the general *topoi* and principles developed hitherto in studies of grammaticalization. We hope, therefore, that by returning to the texts, we will also help to renew the debate on the theoretical issues raised by grammaticalization.

3. The most frequent grammaticalization processes

There are several ways to classify the many examples of grammaticalization in Latin.[53] We can categorize them either according to their starting point (where the grammaticalization starts from) or according to their arrival point (the result of the grammaticalization process). We can also measure the distance between the starting and arrival points on a scale or continuum of grammaticalization that goes from lexical morphemes to fully grammatical morphemes.

This last criterion is linked with the morpholexical status of the linguistic elements, since the degree of semantic change leading to a weakening and a decrease in the number of semantic features is also an acceptable criterion for classification. Finally we quote some examples of demotivation and reanalysis, which are two concepts close to grammaticalization.

3.1. The starting point

If we start our analysis from the linguistic entity which underwent a grammaticalization process, then we must use the concepts "freezing of an inflected form" and "agglutination".

3.1.1. Freezing of an inflected form

3.1.1.1. Freezing of the inflected form of a noun. The freezing of an inflected nominal form (noun or adjective) into an invariable (uninflected) lex-

53. Fruyt (1998a).

eme (preposition, adverb) usually starts from a Latin ablative form or from an old locative singular or instrumental singular form.

3.1.1.1.1. Transcategorization: From noun to preposition. The freezing of a noun in the ablative singular into a preposition or sometimes, more precisely, a postposition is well documented by: *causā* 'for the purpose of, for the sake of' (from *causa*, *-ae* fem. 'trial, cause'); *grātiā* 'for the sake of, for the purpose of' (from *grātia*, *-ae* fem. 'favor, good will'); *mōre* 'in the traditional way (of)' (from *mōs*, *mōris* masc. 'custom, usage'); *rītū* 'according to the practice of, in the manner of' (from *rītus*, *-ūs* masc. 'rites') (see Section 3.3.1).

These freezings occurred before the first Latin texts, but the formation of such relators is still synchronically motivated in the texts, since the noun from which the freezing took place is still in use with a high frequency in the lexicon. The noun thus coexists, in the same synchrony, as a free lexeme with the frozen form as a relator – that is, the non-grammaticalized forms with the grammaticalized one.

This coexistence of two items illustrating two different degrees on the scale of grammaticalization is, in fact, a very common situation (we will also observe it for *licet*, for example).

The morphological freezing and the morphosyntactic transcategorization in such cases cannot be very widely separated in time, since the relator keeps some features of its nominal origin in its syntactic construction: the postposing of the determined head and the preposing of the determiner.

We are sometimes even lucky enough to be able to see the freezing process in the Latin texts themselves, while it is happening, in *beneficiō* for example (from *beneficium*, *-ī* neut.). When it is used in its full lexical meaning of 'benefit', its genitive determiner may only denote a human being. But occasionally *beneficiō* is preceded by a genitive noun denoting an inanimate entity, so that we may then conclude that the number of its semantic features has been reduced (see Section 3.3.1).

This type of word formation for relators must therefore have had a degree of productivity along the whole diachronic chain of Latin.

3.1.1.1.2. Transcategorization: From noun to adverb. The freezing of a noun in the ablative singular into an adverb is also well documented and must have occurred productively throughout all periods of Latin.

The adverb *forte* 'by chance, at random' (from the ablative singular of *fors*, *fortis* fem. 'chance, luck, destiny') existed before the first Latin texts. Many adverbs that issued from such a formation were created before the first Latin texts, from a previous locative singular: *temperī* 'at the right time' from *tempus*, *-oris* neut. 'a period of time'; *temere* 'blindly, recklessly' (from an inherited noun meaning 'obscurity' in the locative singular: **temes-i*, cf. Skt. *tamas-* 'obscurity').

An Indo-European ablative singular and plural case ending (IE **-tos*, cf. Skt. *-tas*) was inherited in Latin, where it became an adverbial suffix, another case of grammaticalization: Lat. *-tus*, *-itus* documented in *in-tus* 'inside', *pen-itus* 'from the inside', *fund-itus* 'from the foundation' (based on *fundus*, *-ī* masc.), *rādīc-itus* 'from the root' (based on *rādīx*, *-īcis* 'root').[54]

Latin also illustrates the formation of spatial adverbs from the freezing of a directive accusative: the accusative plural of an inherited noun for 'door' (Lat. **fora* 'door', IE **dhwer- / dhur-*) is documented in *forās* 'outside' (Christol 2008: 70).

But we see some other adverbs undergoing the freezing process only in the (pre-)classical period of Latin, and we find some clues to this in the texts. Brunet (2008), using the method of semantic features, shows that the ablative singular forms *meritō* (from *meritum*, *-ī* neut.) and *iniūriā* (from *iniūria*, *-ae* fem.) are being transcategorized into adverbs in the archaic and classical periods. Thus the frozen adverbs coexist with the free ablative singular forms of the nouns from which they derive.

3.1.1.2. Freezing of the inflected form of an adjective: From adjective to adverb. The Latin ablative singular masculine or neuter and the old instrumental singular are the two cases mainly used in the freezing of adjectival forms into adverbs (Fruyt 2008a: 54).

The freezing of an adjective in the ablative singular masculine or neuter into an adverb is a very productive process which occurred in many common adverbs from Archaic to Late Latin, for example *continuō* 'immediately, continuously' (from the adjective *continuus*, *-a*, *-um* 'continuous, lasting').

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54. This adverbial formation had a certain productivity in Late Latin, especially in the Christian authors: *dīuīn-itus* 'by divine inspiration' (based on the derivation base *dīuīnus* adjective: 'divine').

A previous instrumental singular ending is preserved in the Latin adverbs in long *e*, which had already become an adverbial suffix in Archaic Latin, whereas it was originally a case ending. This is another case of grammaticalization, and this adverbial suffix is important in the Latin lexicon, since it occurs in the formation of very frequent and fundamental adverbs (*bene* from *bonus*, *-a*, *-um* 'good' and its antonym *male* from *malus*, *-a*, *-um* 'bad'). Some of these old formations may have been demotivated for the speaker since the time of Archaic Latin. The link between the adverb *fermē* 'approximately, roughly, almost, nearly', for example, and the adjective *firmus* 'strong' was no longer felt by the speaker, as can be seen from the merging of *fermē* and *ferē*, which were treated as allomorphs of one and the same adverb in the consciousness of the speech community.[55]

Sometimes a semantic and functional specialization has separated two adverbs whose origin was very similar: *uērē* 'truly' (from the instrumental singular of *uērus* adjective 'true') was maintained as a lexical adverb, while *uērō* 'in fact, without doubt, certainly, indeed' (from the ablative singular of the same adjective) was used as an enunciative and illocutionary adverb acquiring a pragmatic function.[56]

The feminine form was also productive in a small group of spatial adverbs: in the ablative singular feminine, *dextrā* 'on the right-hand side, on the right (of)' (from *dexter*, *-(e)ra*, *-(e)rum* 'situated on the right-hand side') and its antonym *sinistrā* 'on the left' (from *sinister*, *-tra*, *-trum)*.

Another productive process, increasing in Late Latin, is the freezing of an adjective in the accusative neuter singular, such as the temporal adverb *commodum* 'just, precisely' from the adjective *commodus*, *-a*, *-um* (Cic. *Att.* 10,16,1: ***commodum*** *ad te dederam litteras de pluribus rebus*, *cum* … 'I had *just* sent a letter to you about a number of matters, when …').

3.1.1.3. Freezing of the inflected form of a participle: From participle to adverb or preposition. The freezing of a verbo-nominal form (participle) into a relational element denoting spatial relations (adverb, preposition) is

55. Conso (2008).
56. See Rosén (this work, vol. 1, esp. Sections 1.3.6, 2.1.2, 3.2.2.1: function words created out of adverbs).

well documented in a few cases: it is one of the hypotheses proposed for the etymology of the preposition and preverb *trāns* 'across, over, to the other side of'.

But the most interesting group for the study of grammaticalization is the case of *aduersus* (*aduersum*) 'opposite to, in front of' and *uersus* (*uersum*) 'toward', which are both prepositions and adverbs, and the adverb *rūrsus / rūrsum* 'backward, again' (from **re-uersus / *re-uorsus* or *-m*) (Christol 2008: 71–73) and more generally the whole group of directional adverbs in *. . . ō-uersus* or *. . . ō-uersum* (Fruyt 2008a: 55; Lasagna 2008), whose final sequence was reduced to *. . . ōrsus* or *. . . ōrsum* following normal phonetic evolution after loss of the morpheme boundary (see Section 3.1.2). They result from the agglutination of a directive adverb in long *ō* and *uersus* (freezing of a nominative singular masculine) or *uersum* (freezing of an accusative masculine or neuter or a nominative neuter singular), which is originally the past participle of *uertī* 'turn oneself' or the past passive participle of *uertere* 'turn'.

Late Latin gives us the case of grammaticalization of the present active participle of the verb *dīcere* 'say': *dīcēns* in the nominative singular, showing agreement with the subject of the main verb. Thus *dīcēns* has become a quotation marker used to introduce the text of an utterance in direct speech. Such a grammatical item was needed because Late Latin no longer quoted utterances using indirect speech – with the exception of very short sequences. Even Augustine, in *The City of God*, although it is written at a high stylistic level, constantly uses direct speech, introducing the quotations by various forms of the verb *dīcere* 'say' (Aug. *civ.* 1,8,12: *dicet aliquis: ". . . "*; 1,3,7: *cum ei dicitur: ". . . "*; 1,6,10: *de quorum . . . laude dictum est: ". . . "*; 1,9,16: *quibus per prophetam dicitur: ". . . "*).[57] Egeria, however, uses the grammaticalized quotation marker *dīcēns* immediately before the quoted sequence: *Itin. Eger.* 4,2: *. . . ubi ei locutus est Deus* ***dicens****: "Quid tu hic Helias?"* 'where God said to him: "What are you doing here, Helias?" ', literally 'where God spoke to him, *saying*: . . . '. The grammatical role of *dīcēns* as a boundary marker referring to the beginning of a direct speech quotation is clear in the previous passage since the verb *dīcere* was not semantically necessary, as the main clause already contains the verb of saying *locutus est* 'spoke'. The grammat-

57. He only rarely uses the classical incidental verb *inquit* (Aug. *civ.* 1,6,11).

icalization of a form of a verb of saying as a quotation marker seems to be one of the "grammaticalization paths".[58]

3.1.1.4. Freezing of the inflected personal form of a verb. The freezing of a verbal form (personal inflected form) into a coordinator, connector, or subordinator is illustrated by *uel* 'or', *igitur* 'therefore', *licet* + subjunctive 'although', and *estō!* 'let it be!'.

This process is not as frequent as those quoted above. The formation of *uel* and *igitur* is no longer synchronically motivated, and this kind of formation was extended only through the enunciative adverbs such as *quaesō* 'please' or *amābō* in an incidental clause.

*3.1.1.5. Freezing of the *k^wo- / *k^wi- pronouns into a relative, interrogative, or indefinite adverb.* Adverbial items belonging to the **k^wo- / *k^wi- / *k^wu-* stems are documented in Latin. *Vt* (with three functions: relative, interrogative, indefinite adverbs), a descendant of the adverbial stem **k^wu-*, is synchronically analyzed as *u-t*, since it displays parallelism and contrast with its correlative *i-ta*; in the same way, *ubi* is synchronically analyzed as *u-bi* (vs. its correlative *i-bi*) with a special phonetic treatment of **k^wu-* > Lat. *u-*. From the **k^wo- / *k^wi-* stem comes *quam*, synchronically analyzed as *qu-am*. These lexemes (*ut*, *ubi*, *quam*, etc.) are formed with adverbial or cases endings whose origins are disputed.

But Latin also shows some subordinator or interrogative adverbs whose origins can be traced in Latin itself. The causal subordinators *quod* and *quia* respectively come from the freezing of the **k^wo-* relative stem in the nominative-accusative neuter singular and from the freezing of the **k^wi-* stem in the nominative-accusative neuter plural. The interrogative adverb *quī … ?* 'why … ?' is the frozen instrumental singular of **k^wi-*, giving *quī-n … ?* 'why not … ?',[59] when followed by the agglutinated enclitic negation **ne*. The neuter singular of **k^wi-*, *quid*, may function as an adverb 'why … ? in what respect … ?' and may also be followed by the negative enclitic in *quid-nī … ?* 'why not … ?'. Although these two negative interrogative adverbs have a

58. Lorenzetti (forthcoming).
59. Fleck (2008a).

similar origin, their grammaticalization has led to specialization in their illocutionary sense.[60]

Another kind of grammaticalization process affected these lexemes when they became subordinators introducing object completive clauses in certain semantico-syntactic conditions.

The verbs of saying developed a *quod* and *quia* (and *quoniam*) construction of the type *dīcō quod* … 'I say that …' in Late Latin, replacing the classical infinitive clause.[61]

In the *nōn impediō quīn* … + subjunctive construction 'I do not hinder you from …', the subordinator *quin* introduces an object completive clause after a negative main clause containing a verb meaning 'impede, hinder, prevent'. The origin of this grammaticalized use is probably the interrogative adverb *quīn* …? 'why don't you …?' in a diptych containing two juxtaposed clauses: 'I don't hinder you: do it!' with the jussive illocutionary sense of interrogative *quīn*, literally: 'I don't hinder you: why don't you do it?'. The diptych was later reanalyzed as containing a main clause and an object completive clause, so that *quīn* in such contexts was grammaticalized as an obligatory subordinator.[62]

Adverbial *quam*, related to the relative, interrogative, and indefinite pronouns showing the *qu*- stem in Latin, also displays several grammaticalized functions.[63]

60. Fleck (2008b): *quīn … ?* is used with a jussive illocutionary force ('why don't you do that?' with the meaning: 'do that!'), while *quidnī … ?* is used with a different illocutionary force by the speaker in order to protest against the previous utterance of the addressee in the following type of context: B: 'are you doing this yourself?' A: 'why not?'= 'why should I not do it myself?'.

61. The intermediate stage in this grammaticalization case was probably the correlative construction where the neuter singular correlative pronouns *id, hoc, illud* function as cataphors: *id / hoc / illud … dīco quod* …. Cf. Herman (1963); Cuzzolin (1994).

62. As shown by Fleck (2008a).

63. Bodelot (2006).

3.1.2. Agglutination of several words and freezing

The agglutination of several "words" into a single lexeme, with a downgrading of the original "words", is a productive type of word formation in Latin at all periods. We mention here only the main types.

3.1.2.1. Transcategorization of a nominal syntagm. A lexicalized nominal syntagm becomes a single lexeme in the noun *agrī-cultūra* 'agriculture' (the form *agrī* being a genitive singular of *ager* 'field, territory'), in the adjective *uērī-similis* 'having the appearance of the truth' (the form *uērī* being the genitive singular of the adjective *uērus* 'true, real'), and in various adverbs (*eō modo* 'in this way', *rē uērā* 'in actual fact, really').

3.1.2.2. Transcategorization of a prepositional syntagm. Lexicalization of a prepositional syntagm was a productive formation process for all kinds of adverbs from preliterary Latin to Late Latin. Some very common adverbs were created this way, especially temporal and spatial adverbs, since this is a common type of formation in the Indo-European languages: *inter-eā* 'in the meantime, meanwhile' (which is also the meaning of the prepositional syntagm *inter ea*), *praeter-eā* 'in addition to that, as well, besides', *post-eā* 'afterward', *post-illā* 'afterward', *ob-uiam* 'in the way (of), so as to meet' (from *ob uiam*, taken from the verbal complexeme *obuiam īre* 'to face up, to go in front of, to go and meet someone'), *de-hinc* 'after that, next, from here on'.

The form *ad-fatim* or *af-fatim* 'amply, sufficiently' (etymologically 'so as to afford complete satisfaction', from the preposition *ad* and an old noun suffixed with **-ti-*) shows the very special property of being an adverb (a quantifier), and yet also being used as a quasi-noun 'an ample supply' and a quasi-adjective: 'ample, sufficient'.

3.1.2.3. Transcategorization of a verbal syntagm. A verbal syntagm may be lexicalized into a single verb as part of a process of lexemization (the emergence of a new lexeme).

In *manū-mittere* 'to free (a slave)', *manū* is an ablative singular denoting the origin of the movement (the hand *manū* in the ablative singular being here the sign of power). It has been incorporated with the verb *mittere*, so that *manū-mittere* is a different verb from *mittere* 'send'.

Some adverbs come from the melting of a verbal phrase, although this is not such a productive pattern in Latin. A temporal adverb such as *haud fit mora*, *haud mora*, *nec mora* 'immediately' literally means 'there is no delay'. A modal adverb such as *fortasse*, *forsitan* 'may be, perhaps' comes from *fors sit an*, literally 'destiny could be that, it might be that' (with the nominative of *fors* 'chance, destiny, fortune', a present subjunctive of possibility of 'be', and a subordinator *an*). Some syntactic sequences involving a modal verb lead to the formation of free-choice quantifiers,[64] adjectives, and pronouns *(quī-uīs* 'whoever you want, anyone, anything', from *uīs* 'you want' second person singular of *uolō* 'want'; *quī-libet* 'whoever you please, anyone, anything', from the impersonal verb *libet* 'it is pleasing, there is a desire').[65]

3.1.2.4. The directional adverbs in ... ō-uersus. As we have seen in Section 3.1.1.3, directive adverbs in long *ō*[66] such as *intrō* 'toward the inside' are used in the formation of directive adverbs in ... *ō-uersus* (... *ō-uersum*): *intrōuersus* 'toward the inside', *dextrōuersus* 'toward the right', and so on.

3.1.2.5. Agglutination of several uninflected elements. The agglutination of several mainly temporal and spatial relators was very productive in Latin, and this tendency was even reinforced in Late Latin, as can be seen in the *Itinerarium Egeriae*[67] and in the Romance continuations (Fr. *dans* < Lat.

64. For this agglutination process, see Fruyt (1990: 205 §7.3.4 (*quī-libet, quī-uīs, nescio-quis*) and 206). For the recognition of these sequences as instances of grammaticalization issued from modal verbs, see Fruyt (1998a: 884 §3); Rosén (1999: 182; *quī-uīs; uter-uīs* 'either'); Bodelot (2008). See also Bertocchi, Maraldi, and Orlandini (this work, vol. 3, Section 7.1 (*quī-uīs, quī-libet*)) and Section 8.3 below.
65. Maraldi (2000). See Section 8.3 below and Bertocchi, Maraldi, and Orlandini (this work, vol. 3).
66. This long *ō* morpheme, inherited by Latin, could come from a perlative ('moving through') morpheme according to Josephson and Carling (1999). This would be a case of grammaticalization in Latin.
67. Álvarez Huerta (2008: 175–179): *ad tunc* 'then' (reinforcement of *tum* 'then'), *ac sic* 'so' (and even *ac sic ergo*: *Itin. Eger.* 20,1), *ad ubi* subordinator 'when' (reinforcement of *ubi* 'when'), *de intro* 'from the inside of', *de ante* 'from the front of, in front of' (preposition: *de ante cruce*: *Itin. Eger*. 37,8), *in ante* (adverb: *necesse me fuit in ante accedere usque ad Charris*: *Itin. Eger*. 20,1: 'it was necessary that I went forward to Charris'), *a semel* ('suddenly, at once', adverb, reinforcement of *semel* 'once'), *de foris*

**de-intus*). This type of formation for relational lexemes is documented in some high-frequency Latin adverbs: *de-inde*, *ab-hinc*, and prepositions such as *ad usque*.

3.2. The arrival point

If our classification starts from the arrival point of the grammaticalization – that is, the grammaticalized form – then we observe:

- the creation of relators: prepositions / relational adverbs; subordinators; coordinators; connectors; and the evolution of these categories;
- the gradual creation of adverbs (based on adjectives of quality) and their evolution;
- the creation of verbo-nominal forms (infinitives, participles);
- suppletion: the elaboration of verbal and nominal paradigms by suppletion;
- the creation of inflectional endings;
- the creation of suffixes;
- the creation of illocutionary adverbs by semantic and pragmatic evolution, starting from various kinds of adverbs and, especially, from temporal adverbs.[68]

3.3. The degree of "grammaticalization" and morpholexical status

Another criterion for classification is the degree of grammaticalization of the element involved in the change. We usually assume that one of the fundamental purposes of grammaticalization is to transfer a linguistic element from the status of a lexical to a grammatical element or to increase its degree of grammaticalization, so that a grammatical element becomes even more grammatical.

'from outside' (origin of Fr. *dehors*), *a foras* 'outside', *de contra/a contra/e contra* 'in front of, facing'.

68. Bortolussi and Sznajder (2006a, 2006b, forthcoming); Orlandini (2006a–e); for this kind of evolution, see Rosén (this work, vol. 1).

The scale of grammaticalization is a continuum from a purely lexical element to a purely grammatical one. Since it is a continuum, the linguistic elements are more or less grammatical or more or less lexical.

Inflectional endings are grammatical morphemes. Suffixes are more grammatical than the second terms of compounds. We may also consider prepositions, relational adverbs, coordinators, connectors, and subordinators as grammatical morphemes and lexemes or lexico-grammatical elements that occupy an intermediate position according to the number of semantic features they involve.

But most nouns, adjectives, and verbs (except auxiliaries and semi-auxiliaries) are to be considered lexical lexemes.

A second criterion, linked to the degree of grammaticalization, is the morpholexical status of the changing element. The following distinctions have to be made:

(a) a free lexeme is a lexical unit, and therefore it is usually also a free morpheme (a morpheme being a minimal significant unit);
(b) a bound morpheme is also a morpheme, but it is only a part (constituent) of a lexeme;
(c) a morphological element is a part (constituent) of a lexeme which is not a morpheme.

We mention here only the main changes occurring in Latin.

3.3.1. From a lexical to a grammatical element

A lexical morpheme becomes a grammatical morpheme or lexeme, for example, when a preposition or postposition derives from the freezing of a form of a lexical noun: the preposition (and preverb) *ante* ‘in front of’ (the frozen locative singular of an old noun meaning ‘face’), the “postpositions” governing a genitive preserved as the remains of their nominal origin: *causā* ‘for the purpose of, for the sake of’, *grātiā* ‘for the sake of, for the purpose of’. Some other frozen ablative singulars can be put into this category of “quasi-prepositions” or “quasi-postpositions”, although they are not recognized as such by the grammars and dictionaries: *speciē* ‘to all appearances, in the guise, with the illusory appearance (of)’, *locō* (or *in locō*) ‘in place, in position; in one’s turn; by way of, as’, *fīnī* ‘as far as, up to the point, within the bounds of, to the extent of’, *mōre* ‘in the traditional way (of)’, *nōmine* ‘in the

name (of), by the authority (of), on pretext (of)', etc. The ablative *beneficiō* 'by the favor of, thanks to (persons and things)' of the noun *beneficium* also shows some early signs of a grammaticalization process when the complement in the genitive is not a person but a thing.[69]

The same thing happens with a prepositional syntagm containing such a noun: *in nōmine*, *sub nōmine* + genitive 'under someone's name or signature', *ā fronte* 'in front', *in frontem* 'to the fore', *ante frontem* + genitive 'in front of, before'. This phenomenon also took place in preliterary Latin with other nouns that are no longer attested in our texts: *tenus* (postposed) 'right up to, as far as, just as far as' (with genitive and ablative) probably has this kind of origin from the freezing (in the accusative) of a neutral noun suffixed with **-es- / -os-*, on the basis of the Latin "root" *ten-* that appears in *teneō*, *tendō*.[70]

A spatial preposition or adverb can also come from a participle. One of the hypotheses for the origin of *trāns* is the freezing (in the nominative singular) of the present active participle of the verb **trā-re* that we find in *in-trā-re*.[71] The past participle in **-to-* of *uertere*, *sē uertere (uertī)* frozen in the nominative and accusative masculine singular has given the directive adverb-prepositions *ad-uersus* (*-um*) and *uersus* (*-um*) – and the second element of the directive adverbs in . . . *ō-uersus*.

Licet 'although' and *uel* 'or', a subordinator and a coordinator, derive from verbal forms.

A nominal lexeme form may become a verbal lexeme form: the supine comes from an abstract noun of process built with a **-tu-* suffix.

A lexical bound morpheme may become a bound morphological element, for example when the second term of a compound becomes a suffix (with a demotivation of the lexical meaning of the second element): *ātr-ōx* 'terrible in appearance, dreadful' (a previous bahuvrīhi adjective from the Latin adjective *āter* 'dark (with a frightening effect)' and the result of a root **h_3ek^w-* meaning 'see', *fer-ōx* 'having a violent and ferocious nature' (the same structure but with *ferus* 'wild' as the first element), *antīquus* 'ancient, early' (etymologi-

69. Cic. *off.* 3,38: *anuli beneficio rex exortus est Lydiae* 'he (Gyges) became king of Lydia thanks to the ring'.
70. The postposition of nominal origin *tenus* has also been used as a constituent in the agglutinated adverbial sequences *eā-tenus* (or *eā tenus*), *hāc-tenus* (or *hāc tenus*).
71. Assuming that the verb *intrāre* is not based on the spatial relational element *intrā* 'inside'.

cally: 'lying or situated in front'; from **anti*, locative of the noun denoting the face, and a reduced form of the root 'see': *h_3k^w-). The adjectival °-*fic-us*[72] and the verbal °-*fic-ā-re* also seem to have undergone a grammaticalization process, since they became types of suffixes, and °-*fic-ā-re* even became a kind of causative morpheme (*aedi-fic-ā-re* 'build').

3.3.2. From a grammatical to a more grammatical element

A grammatical bound morpheme may become even more grammaticalized. In *templ-a* (neuter plural nominative-accusative of the thematic declension), *-a* was previously a collective suffix that became an inflectional ending.

A grammatical lexeme becomes a grammatical bound morpheme when a full lexeme becomes a constituent (a bound morpheme). The pronominal form **tō(d)* (ablative singular of Indo-European endophoric and correlative **to*-), placed after an imperative form, is grammaticalized in Latin into an inflectional ending in the future imperative second person singular *amā-tō*. Its total integration into the verbal paradigm is shown by its infixation in the plural *amā-tō-te* before the plural ending *-te*. This shows that it was no longer functioning as a free enclitic lexeme and was no longer felt to be a lexeme by the speaker. In this case, a lexeme form has been downgraded to a bound constituent within a lexeme and is even reduced to an inflectional morpheme.

This reminds us of Fr. *chanter-ai* 'I will sing' (< Lat. *cantāre habeō*), where *-ai* comes from *habeō*, and of the Latin preposition *ad*, which became in Spanish a grammatical morpheme used to denote an animate object: Sp. *le vi al jefe* 'I have seen the boss'.

A lexico-grammatical lexeme may become a bound morpheme. The Latin preverbs, before they became constituents of verbs, were free lexemes (we find residual traces of this previous status in tmesis). In Latin, some preverbs are still motivated for the speaker and function as morphemes – that is, significant units: for example *re*-, *per*-. Some are only just still motivated: they benefit from a certain degree of recognition by the speaker in a metalinguistic context, in a reflection on his own language, but they are not morphemes anymore (we call them "morphological elements"). But sometimes awareness of

72. We use the diacritic ⟨°-⟩ here to introduce the second term of a compound, by contrast with any other morpheme boundary.

the morpheme boundary situated between the preverb and the verb was lost and, subsequently, normal phonetic evolution led to a form where the preverb was no longer recognizable. The verb *pōnō* comes from the verb **po-sinō* (with the preverb *po-* or *pō-*), but the formation is no longer clear and synchronically the speaker is no longer aware of the diachronic link between the verbs *sinō* and *pōnō*, and their meanings are different.

A grammatical morpheme (a significant unit) can become a grammatical element. For example, in the freezing of an inflected form, the case ending is no longer a morpheme but is reduced to a grammatical element – an element which is not a synchronically functional unit. The Latin spatial preposition *ante* 'in front of' comes from the freezing of a locative singular form in **-i* > Lat. *-e* (short *e*) of a noun meaning 'face' (cf. Section 3.3.1), with the same semantic structure as English *in front of*, Fr. *en face de*. The final *-e* in Lat. *ante* is not a functional unit; it is fossilized inside the word and its formation is not motivated for the speaker.

3.4. Semantic change

Semantic change is a very general process in Latin, so that the semantic changes leading to cases of grammaticalization are only a subgroup of a general process.

For example, in proper nouns Latin used ordinal numeral adjectives, which are lexico-grammatical items, to create cognomens motivated by birth features, and praenomens, first names, especially from 'fifth' to 'tenth' and mainly *Quintus* 'the fifth (child)', *Sextus* 'the sixth (child)' (Poccetti 1995). But this special kind of transfer, from common nouns to proper nouns, from denotation to designation, should not be considered a case of grammaticalization. On the contrary, we start here from a semigrammatical lexeme (a numeral), but the arrival point is situated in a special area of semantics where the reference tends to be univocal.

3.4.1. Partial or total desemanticization

To the preceding criteria for grammaticalization we can also add the degree of semantic weakening. Some linguists speak of "semantic bleaching", which

probably denotes a total desemantization, as in Lat. **oinom* 'one', which is one of the two elements in the negation *nōn*, or as in Fr. *pas*, *point*, *mie*, *goutte* which are also the second part of the Old French and Modern French negation *ne … pas, ne … point* (since *mie* and *goutte* have disappeared in Modern French).[73] But in most cases, it is only semantic weakening or partial desemantization.

The Romance languages have inherited from Latin a generic pronoun functioning as a universal quantifier, as seen in Fr. *on* (Fr. *d'ici on voit tout Paris*; *on ne peut pas circuler à partir de 8 heures*). Fr. *on* is a grammatical lexeme. Its Latin origin is *homo*,[74] nominative singular of the noun for 'man, human being'. In Late Latin, it seems that the singular form – in a "singulative formation" process – has been influenced by the plural *hominēs* that was usual in Classical Latin to denote 'all human beings' and 'any one of them'. We find a few occurrences in Late Latin where *homo* seems to be undergoing a grammaticalization process, such as (1). There has not been a total desemantisation here since the various words related to Fr. *on* in the Romance languages are used only for human beings: the semantic feature 'human being' has been maintained.

(1) *Itin. Eger*. 13,1: *si tamen labor dici potest, ubi* ***homo*** *desiderium suum compleri uidet*
'if one can speak of toil when **one** sees his desire fulfilled' (= Fr. **on** voit).

The same thing happened with the negative pronoun *nēmō* < **ne hemō* (or **ne homō*) 'nobody'. Since *nēmō* is only used for human beings, it has kept this semantic feature of *homō*.

The same remark could apply to *nihil* 'nothing', which can only be used for inanimate entities and which is indeed based on a noun denoting an inanimate entity: *hīlum* 'a very small thing' (cf. Lucr. 3,514, where *hīlum* is used without a negation). This semantic feature was preserved in the phonetic and functional evolution of the word.

73. Cf. Sections 4.1, 4.2.
74. This origin is mentioned by *Le Robert* (2000: 1474), while the accusative singular *hominem* gave Fr. *homme*. For *homo* in Late Latin as a precursor of Fr. *on* and other indefinite pronouns, see Giacalone Ramat and Sansò (2011).

3.4.2. Loss of semantic features in a noun, noun phrase, or adverb

We find some cases in Latin where a lexical noun is in the process of becoming a relational adverb or preposition. The noun denoting a part of the body *tergum* 'the back part of the human body', 'the back' is used in this way by Pliny the Younger in (2). This is reminiscent of the English preposition *at the back of* (*at the back of the church*) and the French preposition *derrière* (*derrière l'église*), both derived from the denominalization of the same body part.

(2) Plin. *epist.* 6,20,13: *densa caligo* ***tergis*** *imminebat*
'the thick black cloud was pursuing us *from behind*'

A metaphoric transfer may be responsible for the beginning of such semantic evolutions, since some semantic features are lost in the metaphorical shift from one domain to another.

Many cases involve only a small semantic evolution: an adverb denoting a small quantity *sensim* is used as a quantifier in (3).

(3) Gell. 2,26,8: *uirenti* ***sensim*** *albo illuminantes*
'lightening (the red color) ... with a white color containing *a touch of* green'

The evolution of Lat. *hōra*, *-ae* 'hour' is a good example of semantic weakening in Late Latin. At a low level of speech,[75] it became a generic term for any temporal reference: *eādem horā* 'at the same time, at the same moment' is the equivalent of *statim*, *mox* 'immediately, soon' (cf. *ipsā horā*, *ad horam* in Pelagonius). This is preserved in French in the temporal adverbs: Fr. *sur l'heure*, *alors*, where *lors* comes from *illā hōrā*.[76]

The origin of Romance adverbs similar to French adverbs in *-ment* is the Latin sequence ... *ā mente* with the ablative singular of the noun *mens*, *mentis* 'mind' and a feminine adjective with an agreement in the ablative singular *-ā* (for the adjectives belonging to the *bonus* type). This sequence is well attested in Latin texts but usually retains its semantic feature referring to the human

75. And at a higher level of speech, in Lactantius, *certīs hōrīs* 'sometimes'.
76. Adams (1995: 578–579).

mind and to psychological activities, so that *mente* is not totally desemantized in Latin texts.[77]

3.4.3. *Loss of semantic features in a suffix*

The total desemantization of some Latin suffixes should also be mentioned here. The diminutive-connotative suffix -*culus*, -*a*, -*um* loses its semantic features in Late Latin. In Augustine *apicula* already means 'bee' (and not 'small bee'), becoming the semantic equivalent of *apis* in Classical Latin; *auricula* means 'ear' and not 'the part situated at the end of the ear', becoming the equivalent of *auris* 'ear' in Classical Latin. A total desemantization is also seen in the verbal suffix -*tā-re* when in Late Latin the type *cantāre* 'sing' became the equivalent of *canere* 'sing', while in Classical Latin the verbal suffix -*tā*- (in -*tā-re* containing the suffix -*tā*- and the inflectional infinitive morpheme -*re*) was a productive frequentative-intensive suffix and was, therefore, a morpheme.

3.4.4. *Suppletion*

The process of suppletion also involves – among other phenomena –semantic weakening, when new forms entered an old paradigm and lost some of their semantic features, since they usually entered the paradigm of a more generic lexeme.

In Pelagonius, J. Adams[78] quotes the various forms used for the lexeme denoting the knee. They seem to show a suppletion between the old paradigm of the neuter noun *genu* 'knee' and some forms of *geniculum*, formed with the -*culum* suffix, and which denoted in Classical Latin a certain part of the knee (cf. *auricula* for a certain part of the ear). For 'knee', Pelagonius uses, by suppletion, forms of both *genu* and *geniculum*: sg. nom.-acc. *genu*, gen. *geniculī*, abl. *geniculō*; pl. nom.-acc. *genua*, gen. *geniculōrum*, dat.-abl. *genibus*.

77. See Ricca (this work, vol. 2, Conclusion).
78. Adams (1995: 545–546, 561).

The most obvious cases of suppletion are seen in the verbal paradigm. For example, some lexeme forms from the verb *īre* 'go' have been replaced by some forms of *uādere*[79] and *ambulāre*.[80]

3.4.5. Pragmaticization of adverbs

Several illocutionary adverbs obtained their illocutionary force from semantic evolution. For example, *certē* 'certainly, of course' is an adverb in *-ē* (an old instrumental ending from the thematic declension) derived from the adjective *certus*, from the past participle of *cernō*, as 'decided, fixed', therefore 'sure, certain'. Many adverbs underwent a grammaticalization process when they became pragmatic items, such as *deinde*, *atquī*, *autem*, *cēterum*, *contrā* (cf. Section 3.2).[81]

3.5. Other cases of grammaticalization

In this chapter, we mention only a few of the many other cases of grammaticalization. There are numerous other instances that could, in one way or another, be classified as grammaticalization,[82] since the process is widespread,

79. For the very beginning of this suppletion process, see Julia (forthcoming). The imperative forms are usually the first to be involved in suppletion: *uāde!* (imperative second person singular of *uādere*) was the first form of the verb *uādere* to enter the paradigm of the verb *īre* 'go', by replacing *ī!* 'go!' (imp. 2sg.). This monosyllabic form *ī* was, in fact, the shortest Latin word possible, since it contained just one segment. It was probably avoided after a certain period because it was too short and did not have enough acoustic substance to be clearly and easily decoded by the hearer.
80. The use of *fuī* (perfect tense of 'be') with the meaning 'I have been' (Petersmann and Petersmann 2006), as in 'I have been to Sicily' (cf. Fr. *j'ai été en Sicile* in a familiar speech level) instead of a motion verb, does not involve suppletion; it is due rather to a special semantic specialization of the verb 'be' in a past tense.
81. Bortolussi and Sznajder (2006a, 2006b, forthcoming); Orlandini (2006a–e); see Rosén (this work, vol. 1).
82. For example, the *dativus sympatheticus* would deserve further analysis since it is used for the denotation of the possessor alongside the denotation of the possessed entity when there exists an inalienable relationship between the two. For the development and status of the phenomenon in Latin, see Pruvost (in preparation).

even though it is only one subgroup among the many types of linguistic change.

Most of the changes to what could be called "grammar" took place in the prehistory of Latin, among which a large number of grammaticalization cases could be included. Latin prepositions and preverbs, for example, as seen from the perspective of other Indo-European languages, have a common origin and were free adverbial lexemes before they specialized as proclitics before a verb (giving a preverb) or a noun (giving a preposition).[83] These could be interpreted as cases of grammaticalization since their autonomy was reduced. Some Latin nominal inflectional endings come from suffixes: the neuter plural nominative and accusative with short *-a* in *templa* and long *-ā* in *trigintā* comes from a collective suffix **-eh*$_2$. One of the hypotheses for the origin of the Latin inflectional endings in the verbal paradigm is that they could come from free lexemes that were, for some of them, identical to the personal pronouns.

But in this chapter, following Lehmann's and Heine's recommendations (see Section 2.6), we concentrate on those cases whose evolution can be seen or surmised in Latin itself.

4. Negation and grammaticalization in Latin

4.1. The French standard negation *ne … pas*

The best description of a case of grammaticalization given by Meillet[84] is the origin of the French negations *ne … pas*, *ne … point*, *ne … mie*, *ne … goutte* where the nouns *pas* 'step', *point* 'point', *mie* 'crumb', *goutte* 'drop' are used to reinforce the negation *ne*. At first they retained some of their original, concrete semantic value (*goutte*, for example, is only used in Old French with the verb 'see'), but later there appeared a discontinuous constituency with two separated words functioning as one and a single grammatical unit:

83. Cf. recent studies on Indo-European languages in a typological perspective: Cuzzolin, Putzu, and Ramat (2006); Ramat (2008); also Baldi and Cuzzolin, this vol.

84. See Section 2.2.

the two agglutinated[85] elements are *ne* (the original inherited negation) and a lexical noun.

This construction was the "negation of the scalar minimum", which asserts that the smallest element of a certain domain does not exist, and, therefore, that nothing exists. These nouns were incorporated[86] into the negation *ne* and grammaticalized. Later on in French *ne* ... *pas*, *ne* ... *point* prevailed and the nouns were frozen and desemanticized. They were reduced from a lexical lexeme to a grammatical constituent. In reality, they underwent a double reduction: a semantic one, since in Modern French they are desemanticized, and a morphological one, since they have been downgraded in the hierarchy of linguistic elements. Once the grammaticalization process had been completed, the function of *pas* was only to reinforce the phonic weight of the negation *ne* at the signifier level.

4.2. The Latin negations *nōn*, *nihil*, *nēmō*

A similar process to what we witness in French also occurred in Latin[87] in the formation of several negative lexemes[88] such as *nōn*, *nihil*, *nēmō*, namely, the negation of the scalar minimum, with the incorporation into the negation of a grammaticalized lexical (or lexico-grammatical) lexeme.

85. We may speak of agglutination here even though the two constituents are separated by the verb and even though there is no univerbation in this case, since the two elements have a fixed position and are linked to one another.
86. The discontinuous morpheme *ne* ... *pas* has the same function as *ne*. Therefore it is the noun *pas* which has been grammaticalized and incorporated into the negation, and not the opposite: Fruyt (2005a, 2008b).
87. For the syntax of Latin negation, see Touratier (1994: 455–477); for the pragmatic perspective of negation in Latin, see Orlandini (2001).
88. Fruyt (1998b, 2001, 2005a, 2008b).

These lexemes are: **oinom*[89] 'one' (numeral), *hīlum* 'a tiny element' (probably originally a tiny part in a bean, according to Paul. Fest. 90,7–8 L)[90], **he/omō* 'human being'.[91] They became purely grammatical elements.

In this process, we see the downgrading of a morpheme into a constituent and, finally, the incorporation of a desemanticized nominal form into the Indo-European inherited standard negation **ne* (IE **ne*: Skt. *ná*, Avest. and OPers. *na-*, OSlav. *ne*, Lith. *ne*, Goth. *ni*, Ir. *ní*).

4.2.1. Origin of nōn

The Latin negation *nōn* results from an agglutinated sequence of the inherited negation **ne* followed by a form of the numeral 'one': **ne oinom* '(lit.) not one', 'not (even) one'.[92]

A clue to this origin is to be found in the word *noenum*, which shows an intermediate stage of the phonetic evolution (Plaut. *Aul.* 67; Varro apud Non. 144, 2: *si hodie* ***noenum*** *uenis, cras quidem sis ueneris*, etc.; cf. *noenu(m)* Lucilius, Lucretius).[93]

The same semantic and morphological structure is attested in Old High German *nein* 'no' (strong negation in answers in Modern German), which also comes from Indo-European **ne oinom* 'not one'.[94]

89. The signified of a numeral contains lexical features, but its semantic value could be considered as less lexical than the semantic value of a lexical noun. The numeral 'one' is special since, in many languages, it is grammaticalized into an indefinite article in the singular (cf. Section 5.2.1.2), and the same signifier is often used for 'one' and for 'a', which could be considered either homonymy or polysemy. This happened with Lat. *ūnus* in the Romance languages, as we will see in Section 5.2.

90. Paul. Fest. = Paulus Diaconus, *Epitoma Festi*, p. 90, lines 7–8 in Lindsay's edition (1913, 1965), i.e. p. 101 in Muller's edition: ***Hilum*** *putant esse quod grano fabae adhaeret, ex quo nihil et nihilum* '***hilum*** denotes what is attached to the seed of the bean; from *hilum* come *nihil* and *nihilum*'.

91. Although **hemō* is usually considered to underlie *nēmō* from **nĕ hĕmō,* the form *homō* would also be possible here (*nēmō* < **nĕ hŏmō*), since the contraction of *ĕ* and *ŏ* gives *ē* just like the contraction of *ĕ* and *ĕ*, the quality of the first vowel being dominant; *ŏ* and *ă* give *ō* in *cōgō* from *co-agō* and in *cōpula* from **co-ap-*.

92. Ernout & Meillet (1967: 444); Leumann (1977: 424); Fruyt (2005a, 2008b).

93. Ernout & Meillet (1967: 444); Leumann (1977: 67, 224, 424); Fruyt (2005a, 2008b).

94. Ancient Greek and English provide the same 'not one' structure (Eng. *no one* < **no one*

The numeral *ūnus* 'one' still exists in the Latin language as a full lexeme, and the sequence **ne oinom* literally means 'not one'. *One* being the smallest numeral, the assertion of the absence of the smallest numeral is equivalent to the assertion of the void and the total absence of any entity: the argument orientation of 'not one' is 'absolutely nothing'. As in many other languages, what starts as a privative negation, denoting the absence of any entity, then functions as a standard negation.

A second stage was the reduction of the grammatical constituent **oinom* to a phonetic sequence with no semantic value. In this second process of grammaticalization, **oinom* lost both its status as a lexeme form and its semantic lexico-grammatical value denoting unity. Its new function existed only at the signifier level, where it was used to give more body to the inherited negation **ne* (which was too short, since it was a monosyllabic word with a short vowel) and to make its phonic substance more easily perceptible to the ear of the addressee.[95]

Synchronically we must analyze *nōn* as a single morpheme: **oinom* has been incorporated into the negation **ne*, reduced to the sequence /oːn/, and undergone desemanticization. But the total desemanticization of the noun expressing the scalar minimum did not occur in *nihil* and *nēmō*, since they maintained the semantic features 'inanimate entity' and 'human being' respectively.

4.2.2. Origin of nihil

Lat. *nihil* 'nothing' comes from the agglutination of the sequence **ne hīlum* '(lit.) not even a very small thing' (cf. Section 4.2). This noun *hīlum*[96] is well

'not one'), but the resulting word is not a standard negation. It is the equivalent of Lat. *nēmō*. From Gk. οὐδὲ εἷς 'not one' (numeral 'one' in the masculine) is derived οὐδείς 'nobody'; in the neuter, οὐδέν 'nothing'; the Hittite negation *natta* has the same origin.

95. Latin could not keep the inherited negation **ne* as such, since it was a monosyllabic word containing a short vowel. Latin usually lengthens the vowels of nonclitic monosyllabic words containing a short vowel. But it was impossible to do so in this case, since it would have been homophonous with the other productive Latin negation *nē* with a long *ē* (Fruyt 2008b, 2008c).

96. This noun is used in a pun instead of the real name *Hirrus*. Cicero pretends he has a speech defect (pronouncing /l/ instead of /r/): Cic. *epist.* 2,10,1: *de **Hilo** (balbus enim sum)* 'about Hilus (indeed, I have a speech defect)'.

attested in Archaic Latin, with the meaning 'the smallest entity possible', where it denotes 'something insignificant' in a certain domain (cf. Enn. *ann.* 14; Plaut. *Truc.* 560; Varro *ling.* 5,113: *filum*, *quod minimum est* ***hilum****; id enim minimum est in uestimento*).

It is usually used in negative clauses, so that these constructions appear to be the ancestors of *nihil*, dating from the first stage of the grammaticalization process, when **ne* and *hīlum* were not yet fused into the one and the same word and could still be separated (cf. Lucr. 3,1087: ***nec*** ... *demimus* ***hilum*** *tempore de mortis*; Lucr. 5,1409: ***neque hilo*** *maiorem* ... *capiunt dulcedini' fructum*).

The following stage, where *hīlum* is already frozen into an adverb but where the two elements are still separated, is also attested (cf. Lucr. 3,783: ***neque*** *inter se contendant uiribus* **hilum**; 4,515; 5,358).

A passage of Lucilius shows the adverb *hīlum* used in combination with the productive negation *nōn*: Lucil. 1021: *non proficis hilum*, which is a cyclic renewal of **ne* + *hīlum*, the old negation **ne* being replaced here by its productive counterpart *nōn*. The existence of this renewed sequence is also proved by Varro's interpretation of *nihilī* by *nōn hilī*, with a re-interpretation of the negative bound morpheme *ni-* as the equivalent of the productive negative lexeme *nōn* (Varro *ling.* 10,81: *eum quem putamus esse* **non hili** *dicimus* ***nihili***).

Thus, in the formation of *nihil*, the noun *hīlum* was incorporated into the inherited standard negation **ne*, in accordance with the structure of the negation of the scalar minimum,[97] and the logical implication of 'not even

97. The same process occurred in the Germanic languages in the English negation *not*, from OE *nēowiht* > *naught* > *not*, OHG *niowiht* > Ger. *nicht*. In the languages of the Western group, the Indo-European inherited negation Goth. *ni*, OE *ne* was slowly replaced by a sequence of several words: **ne aiwin wehtiz*, lit. 'not + ever + thing', where **aiwin* is the accusative of **aiwi-* 'length of time' (cf. Lat. *aeuum)* and **wehti-* 'thing, human being, supernatural being'.
The North Germanic languages have undergone a similar evolution, but they went further: the old negation disappeared completely and the second word became the negative morpheme.
(a) In North Germanic, the inherited sentence negation **ne* disappeared as a proclitic item and was only preserved in agglutinated sequences such as Old-Icelandic *nei* 'no' (from **ne-aiw* 'never'), *neinn* 'no one' (from **ne aina-* 'not one'), *nefa, nema*

the sprout of a bean' is 'nothing at all'. The phonetic evolution is **ne hīlum* > **ne-hīl(um)* > **nihīl* > *nihil* > *nīl*. *Nihil* and *nīl* are two diastratic variants, which can occur in a synchronic variation in the same passage (Hor. *sat.* 1,5,64). The desemanticization of *hīlum* is not total here, since *nihil* still shows an inanimate semantic feature and denotes the absence of any inanimate entity, while *nēmō* denotes the absence of any human being.

4.2.3. *The origin of* nēmō

The negative pronoun *nēmō* 'nobody, no one' is based on the frozen syntactic sequence **ne hemō* or **ne homō*,[98] where the negation is followed by the existing noun *homō* 'human being' (cf. Section 4.2). It meant originally 'not a human being', therefore 'not even one human being', 'absolutely nobody'. As mentioned in Section 3.4, the desemanticization is not complete here, since the semantic feature 'human being' still remains for *nēmō.*

The same partial desemanticization occurred in the Romance languages, at least twice: in French *ne … rien* used for inanimate entities as opposed to *ne … personne* used for human beings, and in French *on* and its cognates

= Lat. *nisi*, etc. The sentence negation with a word accent and a long vowel **nē* (= Lat. *nē*) was maintained in Old Norse in the oldest texts (*Völuspá* 5: *sól Þat né vissi* 'the sun did not know that'), but it was replaced by suffixed particles *-a* (from **-ain*), **-at* (from **ainata* 'one'), and later on by *ekki*, the adverbialized neuter form of the pronoun *engi* 'no one, nobody', derived from **aina* (= Lat. *ūnus*) and the particle *-gi*; but in the oldest texts, *ekki* keeps its meaning 'not at all, absolutely not'.

(b) In Modern Icelandic, the negations are *nei* 'no' and *ekki*: *hann er ekki hér* 'he is not here', *hann er ekki franskur/Frakki* 'he is not French', *er hann heima? Nei, hann er ekki heima* 'is he at home? No, he is not at home' (see Eyjólfsson 1996: 139). In this function, Icelandic *ekki* is similar to Fr. *pas*, which is becoming the usual negation in the spoken language and which comes from the reduction of the first element (historically the negative one) of the discontinuous negative morpheme *ne … pas.*

98. In *nēmō*, there occurred a contraction of two vowels (either *ĕ+ĕ* or *ĕ+ŏ*: cf. Section 4.2) as a kind of internal sandhi. The phonetic evolution was different for *nōn*, where there occurred an external sandhi with the elision of the final vowel of the first word **n(e) oinom*, which is usual in a syntactic sequence. It was also different in *nihil* < **ne-hīlum*, where we do not see the elision of the vowel of the first word, probably because the sequence was frozen at a time when the /h/ was still pronounced. Although the phonetic treatments are different, the agglutination and grammaticalization processes are similar.

in the other Romance languages as generic pronouns used for human beings. Since they come from the grammaticalization of Latin *homō* (cf. Section 3.4), they have preserved the 'human being' semantic feature.

Nevertheless, *nēmō* shows synchronic demotivation, with the loss of the morpheme boundary and a partial desemanticization, since the formation of the word is no longer clear for the speaker. This is shown by the fact that the colloquial language in Plautus includes the sequence *nēmō homō* 'nobody, no man', probably as a reinforcement of *nēmō*, as in (4). Since the consciousness of the diachronic link between *nēmō* and *homō* had been lost, the same morpho-semantic structure was rebuilt a second time (a cyclic renewal) when *homō* was added to *nēmō*. On that occasion, *nēmō* itself was grammaticalized, since it was used as a negative modifier of *homō* (cf. *nūllus homō* 'no man').

(4) Plaut. *Amph.* 566–568: *tune id dicere audes, quod* ***nemo*** *umquam* ***homo*** *antehac / uidit nec potest fieri, tempore uno / homo idem duobus locis ut simul sit?*
'do you dare to say what **nobody** ever saw and what cannot happen, that the same man should be at the same time in two different places?'

4.3. The origin of the negative bound morpheme (prefix) *ne-/n-*

4.3.1. The stages in the grammaticalization chain

Negative inherited **ne* has probably undergone the following stages.

At first, it must have been a grammatical morpheme **ne*, sometimes stressed – and therefore lengthened in Latin[99] (cf. Fruyt 2008c, *nē … quidem*, etc.) – and sometimes unstressed as a proclitic: **ne sciō*, **ne fās est*, **ne cessis est*.

The second stage was accomplished when it became a preposed affix in *ne-sciō*, *n-ūllus*, and so on; that is, a bound grammatical morpheme dependent

99. Latin has a small group of clitic monosyllabic lexemes ending with a short vowel: *-que* 'and', *-ue* 'or', *-ne* (interrogative particle), deictic *-ce,* negative **ne.*

on a particular type of word category: the synchronic form of the morpheme is *ne- / n-* with a phonetically conditioned distribution.

The third stage is shown in *nōn* 'not', *necesse est* 'it is necessary to'. This is now a morphological element inside a grammatical lexeme, a word constituent which is no longer a morpheme that can be symbolized as *ne-* … */ n-*. …

4.3.2. From grammatical lexeme to grammatical bound morpheme

Latin negation also illustrates the situation where a grammatical lexeme becomes a grammatical bound morpheme.

Latin inherited a standard negation **ne*, which was either stressed (Skt. *ná*) or not. It became a clitic in Latin in most of its uses,[100] and more precisely a proclitic in: *n-umquam* 'never' (vs. *umquam* 'ever'), *n-usquam* 'nowhere' (vs. *usquam* 'somewhere'), *n-ūllus* 'none' (vs. *ūllus* 'any'), *ne-sciō* 'I do not know' (vs. *sciō* 'I know'), *ne-fās est* 'it is forbidden, it is not permitted'[101] (vs. *fās est* 'it is permitted') with a reanalysis of *ne-fās* as an antonym to *fās* in *fās est*, *ne-fāndus* (*fārī* 'speak').

In these cases, the proclitic **ne* was agglutinated in front of the lexemes it was modifying: **ne-uolō* > *nōlō* 'not (to) want' (vs. *uolō* 'want').

A clue to the morphemic status of the negative prefix *ne- / n-* appears in the fact that it provided the opportunity for a back formation. Instead of adding the negative morpheme *ne- / n-* before a lexeme, the negative element *ne-* was "withdrawn". Synchronically, the nonnegative *quīre* 'to be able to' is the counterpart of the negative *ne-quīre* 'not to be able to', according to the well-attested relationship between *scīre* 'to know' and *ne-scīre* 'not to know'. But diachronically, *nequīre* preceded *quīre* and so the lexical innovation was a back formation, from the negative verb *ne-quīre* to the positive verb *quīre*.

This is due to the fact that *ne-quīre* is the result of a reanalysis in an agglutinated sequence containing the verb *īre* 'go', probably in the imper-

100. But the stressed non clitic use of **ne* in Latin is probably attested in a few lexemes: *nē* … *quidem* 'not even', *nē-quāquam, nē-quīquam* 'in no way, absolutely not', the adjective *nē-quam* 'bad, useless' (Fruyt 2008c). In these cases, the original short *e* of **ne* was lengthened in Latin because **ne* here was a monosyllabic stressed word.

101. Although it is graphically attached to *fās*, the negation *ne-* modifies the whole verbal phrase *fās est*.

sonal passive form:[102] **nequ(e) ītur* > *nequītur* ‘(lit.) it does not go’, ‘it is not possible’. From this form was built a verbal paradigm, and therefore a new lexeme was created: *nequ-eō*, *nequ-īs*, *nequ-it*, *nequ-īre* ‘not be able to’. This verb must then have undergone reanalysis as *ne-queō*, *ne-quīs*, *ne-quit*, *ne-quīre*, leading to deprefixation of *ne-*, reanalyzed as a negative morpheme. The result was the reverse creation of the positive modal verb of capacity: *queō*, *quīs*, *quit*, *quīre* ‘be able to’.

The Pompeian graffiti provide an example of cyclic renewal of the negation: instead of *ne-scit*, the author (who was not very literate) has written *nosci*, which stands for *nōn scit*:

(5) *CIL* IV 1173: *QVISQVIS AMA, VALIA, PERIA QVI* ***NOSCI*** *AMARE*
= *quisquis amat, ualeat! pereat qui* ***non scit*** *amare!*
‘anyone who loves, let him be in good health; let him die the man who *does not know* how to love!’

The writer has recreated the structure that existed in *ne-sciō*, namely the agglutination of the standard negation *ne-* plus *scīre* ‘know’, but he has used the productive negation of his time, which is *nōn*. The phonetic spelling ⟨*noscit*⟩ (without the second *n* of *nōn*) shows that, in the writer’s pronunciation, this consonant had probably been dropped. The negation was thus phonetically strongly linked to the following verb, and the phonetic developments there were the same between two “words” in external sandhi as they were inside a word in internal sandhi. In the sequence “vowel + *n* + *s*”, the *n* had a tendency to disappear in pronunciation. This shows that, at the end of the first century CE, the standard negation *nōn*, when situated immediately in front of the verb that was in its focus, had a tendency to become a clitic, and more precisely a proclitic, just as **ne* had done several centuries before.

4.3.3. Demotivation cases involving ne… / n…

There are cases where the negative **ne* was no longer a morpheme and was even demotivated: for example in *necesse est* ‘it is necessary that’, which

102. Elision of the final *-e* before the initial *i-* in external sandhi.

comes from a verbal complexeme meaning approximately ‘there is no way out’, from **ne cessis est* or **ne cessus est*.[103]

The negative coordinator *ne-que* certainly originated as a combination of two morphemes, a negation and a coordinator, but afterwards it probably became just one single morpheme. Nevertheless, its formation was still motivated and transparent for the speaker, who could still recognize the two morphological constituents.

4.4. The prohibitive negation *nē*

4.4.1. First stage of grammaticalization: Transcategorization as a subordinator

The prohibitive negation *nē* as in (6) probably underwent reanalysis leading to transcategorization. It was then used as a negative subordinator, introducing a completive clause as in (7) or a circumstantial clause in the subjunctive as in (8).

(6) Plaut. *Asin*. 778: *spectandum* ***ne*** *cui anulum det*
‘she must not give her ring to anybody to look at’

(7) Plaut. *Cas*. 322: *opsecrat* ***ne*** *Casinam uxorem ducam*
‘he begs me not to marry Casina’; ‘he begs that I should not marry Casina’

(8) Plaut. *Mil*. 478 : *abeo a te,* ***ne*** *quid tecum consili commisceam*
‘I go so that I should not have any project with you’

4.4.2. Second stage of grammaticalization for nē *as a subordinator*

The subordinator *nē* underwent a second grammaticalization when introducing a completive clause after verbs of fearing and hindering, where it lost its negative sense: *timeō nē ueniat* ‘I am afraid that he will come’, so that a negation *nōn* then had to be added in order to obtain a negative completive clause:

103. Fruyt and Orlandini (2003).

timeō nē nōn ueniat ‘I am afraid that he will not come’, as in (9), cf. Cic. *Att.* 9,6,6: *timeo* ***ne non*** *impetrem.* This is a case of grammaticalization, since there has been desemantization and also because dissimilation of the negative subordinator has taken place. The subordinator *nē* is now only lexically conditioned by the semantics of the main verb. Its distribution, therefore, is more restricted than that of a true negative subordinator.

(9) Plaut. *Cas.* 575: *metuo* ***ne non*** *sit surda*
‘I fear that she is not deaf’

4.4.3. From imperative to prohibitive negation

Latin also provides interesting cases of an imperative form grammaticalized into a prohibitive morpheme.

The first case is *nōlī*, the first constituent of a grammaticalized periphrasis *nōlī* + infinitive used for prohibition and a negative order, as in (10). *Nōlī* was created as an analogical imperative form from an analogy where it is associated with the second person singular present subjunctive of the verb *nōlō* ‘not want’. The relationship *nōlīs* : *nōlī* (i.e., the relationship which *nōlīs* bears to *nōlī*) was created on the model “subjunctive : imperative” in *legās : lege*, *amēs : amā*, *moneās : monē* or “indicative : imperative” in *amās* : *amā*, *monēs* : *monē*, *audīs* : *audī.*

(10) Cic. *Att.* 15,6,3: *retine, obsecro te, Cicero, illos et* ***noli sinere*** *haec omnia perire*
‘stop them, I beg you, Cicero, and *do not let* everything go to ruin’

The second case showing the process of grammaticalization of an imperative into a prohibitive negation is not yet fully grammaticalized but is on its way to grammaticalization: *cauē* ‘beware!’, the imperative of *caueō* ‘be careful, be on one’s guard’, is used as a prohibitive morpheme[104] in passages such as (11). Its degree of grammaticalization is increasing here, since it appears to be frozen in the singular without any plural agreement – even though the context is in the plural – in (12). This is to be compared with the usual type: *cauē nē ignōscās!* ‘Beware of forgiving!’ (Catull. 61,146: *quae tuus uir petet*

104. Fruyt and Orlandini (2008).

caue ne neges). In such examples, *cauē* stands for *cauē nē* and functions by itself as a prohibitive negation.

(11) Cic. *Lig*. 16: ***caue*** *ignoscas!*
'don't forgive!', 'beware of forgiving!'

(12) Plaut. *Poen*. 117: ***Caue*** *dirumpatis, quaeso, sinite transigi*
'don't interrupt the story, please, let it go to the end!'

Thus, the first stage exhibits two juxtaposed main clauses ('*caue: ne dirumpatis*' 'be careful: don't interrupt . . . '). The second stage contains a hypotactic structure with a main clause governing a subordinate clause (*caue ne dirumpatis*). In the third stage, when *cauē* by itself was felt as a prohibitive negation (*caue dirumpatis*), there is only one clause and one verbal group. Here *cauē* is functioning not as a full verb, but as part of a syntheme, just like *nōlī* in *nōlī facere* 'do not do'.

4.5. Transcategorization of a negation into a subordinator: *nei* > *nī* 'if . . . not'

The Latin word *nei* derives from the inherited unmarked negation **ne* (with short *e*), reinforced by the deictic morpheme *-ī*. It was used in Archaic and Classical Latin as a variant for *nisī* (< *ne-sei*) introducing a hypothetical clause[105] as the negative counterpart 'if not' of *sei* > *sī* 'if'.

This grammaticalization of the negation *nī* is the same phenomenon as the grammaticalization of *sei* > *sī* when this frozen locative singular of the **so* anaphoric stem became a subordinator in a correlative diptych (a correlative twofold complex sentence construction):[106] *sei . . . , sei-ce . . .* '(lit.) in

105. In this use, *nī* was eliminated by *nisi*. Phonetic reasons were probably important here; *nī* is still attested in Cicero, but mainly in lexicalized sequences and proverbs: *ni ita se res habet (haberet)*; *quod ni ita sit (accideret)* (as in Cic. *Tusc*. 5,39; Cic. *Cato* 67; cf. Cic. *epist*. 7,13,1).

106. Correlation is a fundamental feature for the syntactic and semantic organization of the Latin sentence (as well as for most of the other ancient Indo-European languages). It is based on a set of two clauses linked into a diptych. Each clause contains a specific lexeme (usually a correlative and a "relative") and the two lexemes function as a morpheme pair.

these conditions ..., precisely in these conditions ...'.[107] This is a case of grammaticalization since it involves the creation of a subordinator (cf. Meillet 1916) with more restricted syntactic conditions for the new word in its new function.

The origin of the construction in (13) could be a subjunctive of supposition or hypothesis[108] with a **ne* negation in the first clause, which was later reanalyzed as a subordinate clause. The form *nī* was then synchronically analyzed as the equivalent of *nisī*: 'Suppose your forehead did not have a mutilated horn, what would you do'.[109]

(13) Hor. *sat.* 1,5,58–59: *o tua cornu /* ***ni*** *foret exsecto frons, inquit, quid faceres*
'oh *if* your forehead, he said, *did not* have a mutilated horn, what would you do?'

4.6. The archaic negation *haud*

The negation *haud* was still productive in the archaic period as a standard negation (14), but its signifier became too light. The initial *h-* was no longer pronounced, and the final dental was not clearly pronounced either. The word became a homonym of the disjunctive coordinator *aut* 'or'. It therefore fell out of use. Its use in the classical period is limited to some lexicalized or frozen sequences,[110] mostly as a word negation or inside a verbal complexeme. In classical times, *haud sciō* (Caes. *Gall.* 5,54,5) is the equivalent of

See Haudry (1973); Touratier (1980, 1988, 1994); Rosén (1999: 164); Fruyt (2005b, 2005c); Christol (1992).

107. Fruyt (2005b, 2005c).

108. As seen in Cic. *off.* 3,54: ***uendat*** *aedes uir bonus propter aliqua uitia quae ipse norit, ceteri ignorent ..., quaero, si haec emptoribus uenditor non dixerit..., num id iniuste aut improbe fecerit?* '*suppose* a virtuous man sells a house because of some defects (faults) that he knows himself, but which other people are unaware of, I ask, in the event that the seller did not tell this to the buyers, if by any chance he acted in an unfair and dishonest way?'

109. Cf. Hor. *sat.* 1,9,37: *quod* ***ni*** *fecisset, perdere litem* 'if he had not done it, he would lose his deposit', 'supposing he had not done it, ...'.

110. Kühner & Stegmann (1914, II, 1: 814–815 Section 148b).

ne-sciō, so the negation *haud* was becoming a bound morpheme, an affix dependent on the following word. Its use is highly conditioned by the grammatical category and semantic type of the following word.[111] *Haud* is often used in litotes next to lexemes denoting doubt: *haud dubiē*, *haud dubitō quīn*. It is totally lexicalized in the adverb *haud secus* 'just so', which is a litotes, since it literally represents the negation of the adverb *secus* 'differently, in another way'.

(14) Plaut. *Amph*. 572: *uerum* **haud** *mentior, resque uti facta dico*
'But I *do not* lie, I am telling what really happened'

4.7. Merging of a postposed negation into an interrogative, coordinator, subordinator

4.7.1. Quīn … ? *and* quidnī … ?

As seen in Section 3.1.1.5, the two interrogative-negative adverbs *quīn … ?* and *quidnī … ?* contain respectively *quī* and *quid*, frozen forms of the instrumental singular and nominative-accusative neuter singular of the stem *k^wi-* in its interrogative use. The enclitic has been agglutinated after these two frozen forms: the inherited standard negation **ne* in *quīn* (from **quī-ne* with a normal loss of the final short vowel), with the reinforcement of the particle **i* or **ī* in *quid-nī.*

Although the Indo-European negation **ne* is generally proclitic in Latin, here it is enclitic. The grammaticalization chain may be formalized as follows: at first, this enclitic **ne* was a free lexeme. After its agglutination with *quī* and *quid*, the lexemes were *quīn* and *quidnī*, while *-n* and *-nī*, at this second stage, were morphemes (in the full sense of the term as significant semantic units), and more specifically, negation morphemes. Later on, at a third stage, they were reduced to the status of constituents of interrogative-negative adverbs.

111. *Haud* is found mainly before indefinite pronouns or adverbs (*haud quisquam, haud usquam*, etc.), quantitative adjectives denoting spatial and temporal dimensions (*haud magnus, haud exiguus, haud longus*, etc.), or adverbs of the same semantic type (*haud diū, haud magis, haud longē, haud procul*, etc.).

This grammaticalization process was concomitant with an illocutionary specialization of the two adverbs in two different pragmatic tools (Section 3.1.1.5).

The two lexemes also differ as to the extent of their functions: *quidnī* is only an interrogative adverb, while *quīn* underwent a more complex development. As shown by Fleck (2008a), the interrogative adverb evolved into a coordinator between two sentences with an additional sense. This could already be considered a kind of grammaticalization, since the coordinator possesses fewer semantic features than the interrogative-negative adverb it comes from. Another grammaticalization process was involved when the interrogative adverb *quīn* also gave birth, under certain specific semantico-syntactic conditions, to the subordinator *quīn* introducing the object clause governed by a negative verb meaning 'impede, hinder' (*nōn impediō quīn* ..., cf. Section 3.1.1.5, according to Fleck's interpretation).[112]

4.7.2. Quō-minus

The grammaticalization process that led to *quō-minus* went through several phases, from *quō* ... *minus* (with the two elements separated), to *quō minus* (with two adjacent "words"), and finally *quō-minus*. *Quō* seems to be the frozen ablative-instrumental of the relative pronoun *quī* (*k^wo-* stem), and *minus* is the negation that comes from the adverbial form of the comparative *minor* 'smaller', so that the literal translation could often be 'by which fact ... not' (15).

(15) Cic. *nat. deor.* 1,95: *quid autem obstat* ***quo minus*** *sit beatus si non sit bipes?*
'but what prevents him (the god) from being happy if he does not have two legs?'
= lit. 'but what is the obstacle by which he would not be happy if he does not have two legs?'

112. The subordinator *quīn* also displays some uses connected with the origin and the function of the relative pronoun.

4.8. From lexical lexeme to negation

The semantic change that led some lexical or semi-lexical words to become types of negation could also be attributed to grammaticalization.

The adverb *male* before an adjective or an adverb may function as a negative morpheme: *male sānus* is almost the equivalent of *in-sānus*, and the formation has survived in Fr. *mal-sain*, which is the antonym of *sain*.

Some relational elements (prepositions, preverbs, prefixes) tend to function as a negative in compounds of the bahuvrīhi type: *ex-pers* 'having no share, devoid of', *ā-mēns* and *dē-mēns* 'insane, out of one's mind', *ex-sangu-is* 'bloodless, lacking blood'.

The fact that *minus* 'in a smaller degree, less', the adverb derived from the comparative *minor* 'smaller', functions as a mild negation 'not fully, not quite' (16) or as a word negation (17) is a case of grammaticalization. The lexical semantic features of the comparative *minor* have been lost.

(16) Ter. *Andr*. 655: *tu* ***minus*** *scis aerumnas meas*
'you don't know much about my troubles'

(17) Cic. *Brut*. 74: *haec si* ***minus*** *apta uidentur*
'if they do not seem to be very appropriate'

4.9. Lexicalization of a sequence containing two negations

A sequence of two negations can be grammaticalized into an adverb following the semantic model of litotes. Situated at the beginning of a sentence, *nec nōn* (*neque nōn*) means 'and in addition (to that)'. It probably comes from the combination of a sentence negation and a verb or clause standard negation: 'it is not true that … not'. This coordinator between two sentences is used in an anaphoric way in order to express a reinforcement of the argument developed in the preceding sentence, as in (18). This lexicalized sequence is a lexeme and it was probably common in spoken Latin. The notion of addition was even reinforced in Late Latin by the agglutination of *etiam* 'also' in the sequence *nec nōn etiam* (*Itin. Eger.* 39,1).

(18) Varro *rust*. 1,9,4: *hae ipsae ternae species ternas in se habent alias, quod partim sunt umidiores, partim aridiores, partim mediocres.* ***Neque non*** *haec discrimina pertinent ad fructus uehementer*
'these three species are themselves divided into three others, since some are more humid, some dryer, and some are in between. *And in addition to this*, these features have a big influence on the crops'

4.10. Cycles of negation

Typologists consider negation a privileged area for the study of grammaticalization in all languages. One of the reasons put forward is that negation shows cyclic evolution. According to van Gelderen,[113] there are two main cycle types in the world's languages: one is based on words meaning 'nothing, never, a bit' (she quotes English, French, and Arabic in this type) and the other uses a new verb (she mentions Chinese).

Latin obviously belongs to the first group. Therefore, following the same diachronic line as the Latin examples seen above, Fr. *ne* … *pas* has to be considered a cyclic renewal of the Latin negations *nōn*, *nihil*, *nēmō*.

5. Endophors and deictics

5.1. Personal pronouns and grammaticalization

5.1.1. The reflexive pronoun sē

In the morphological category of the Latin personal pronouns, the integration of *sē* into the personal pronoun paradigm involves grammaticalization. The reflexive pronoun *sē* took on a morphology similar to that of the other Latin personal pronouns. It is a Latin adaptation of the word **swe*, attested in other Indo-European languages,[114] where it was not limited to a grammatical per-

113. Van Gelderen (2008); see also Croft (1991).
114. Petit (1999); Fruyt (2006).

son as it is in Latin (third person) but could be used for all persons (cf. Skt. *svayam*) with a semantic value similar to 'the person himself'.

This could be considered a case of grammaticalization, since it involves the construction of the paradigm of the personal pronouns, which are grammatical lexemes or, more precisely, a "morphologization" or a "paradigmatization". The Latin reflexive pronoun acquired certain morphological constraints, and it was given a paradigm.[115] It became part of a system and subject to morphological constraints on the signifier level and syntactic and semantico-referential rules on the signified level, with very restricted distribution.

5.1.2. The subject constituent

The personal morpheme in Latin is the inflectional ending of the verb (*am-ō*, *am-ās*, *am-at*, *leg-ō*, *leg-is*, *leg-it*, etc.), which agrees with the grammatical subject. But in some texts (mainly reflecting variations derived from the spoken, low-level language) in the post-classical period, Latin shows a tendency to reinforce the verbal ending by a subject constituent (such as a personal pronoun, an endophor-deictic pronoun, or a full nominal constituent containing an endophor-deictic adjective).[116] This could be an indication of an evolutionary process.

Although not all Romance languages have gone as far as Modern French in this domain, we may have in Latin the beginning of an evolution that would, later, lead to a verbal morphological system similar to that documented in Modern French, where most personal morphemes are affixes pre-

115. But there is a gap in its paradigm probably due to its origin: the reflexive pronoun does not have a nominative form.

116. Cf. Pinkster (1987a); Herman (1991). A similar process may have occurred in the long term for the syntactic function of adnominal determination (Selig 1992). Old French, for example, shows a tendency to fill the adnominal position with a determiner (the definite article in Old French and the indefinite article singular in Middle French: Carlier 2001). This tendency might have been at work; but at its very beginning, in the spoken language of the Late Latin period, this might be one of the factors explaining the frequency of adjectival *ipse* in the *Itin. Eger.*: see Section 5.2.8. The phonetic erosion of the nominal inflected endings probably played a role in this tendency (cf. Herman 1985). Janson (2008) has shown the neutralization in the pronunciation of many vowels in final syllables in Gregory of Tours.

ceding the verb in order to eliminate ambiguity in the verbal form. This is particularly relevant where two or several forms are pronounced the same, such as the present indicative first, second, and third person singular and third person plural: *je chante*, *tu chantes*, *il chante*, *ils chantent*. In this situation in Modern French, the personal pronoun has undergone a grammaticalization process, since it has lost its autonomy and has become an affix subject to very restricted distribution.

One of the factors motivating this shift could be the phonetic erosion of the final syllable in Latin, which is obvious already in preliterary archaic inscriptions as well as in Late Latin texts and documents.

Thus the emergence of a grammaticalization process affecting Latin personal pronouns (i.e. first and second persons, since Latin does not have a third person personal pronoun apart from the reflexive *sē* seen in Section 5.1.1) may be revealed by their increasing use in the subject function. In Archaic and Classical Latin, the personal pronouns appear in the subject position only when there is emphasis on the subject, which is often the case in the dialogues in Plautus and Terence. In this type of text, a contrast very often exists between the speaker and the addressee (*ego* vs. *tū*). The following passages display a double opposition and reciprocity, with *tū* vs. *ego* and *mē* vs. *tē* (19) and *ego* vs. *tū* and *tū* vs. *ego* (20).

(19) Plaut. *Aul*. 217: *quoniam tu me et ego te qualis sis scio*
'since I know (what kind of man) you (are) and you know what kind of man I am'

(20) Plaut. *Stich*. 731: *sed* ***ego*** *tu sum,* ***tu*** *es ego*
'But I am you, you are me'

Over the history of Latin, the number of situations increased where the personal pronoun was expressed in the subject function, even when it was not necessary because there was little or no emphasis on the person designated by the grammatical subject. This increase in frequency of the personal pronoun in subject function is already to be seen in Petronius in the freedmen's speeches. This shows that this tendency was already visible at the colloquial and lower levels of the spoken language at the end of the first and beginning of the second century CE.

This tendency to fulfill the subject function by a constituent other than the verbal ending is also seen in Late Latin in the third person, with endophoric-deictic pronoun-adjectives such as endophoric *ille* and *ipse* and deictic *iste*. This might have been a necessity at a time when the phonemes were neutralized in most final syllables, a phenomenon that can be seen clearly in Gregory of Tours (6th c. CE).

Unfortunately, the Latin texts from the late period are too heterogeneous (often being literary and artificial) to inform us reliably about the real, standard spoken language of the time.

5.2. Endophoric and deictic lexemes (pronouns, adjectives, adverbs): *is*, *hic*, *iste*, *ille*, *ipse*

A clear distinction between endophoric and deictic reference (Kleiber 1992) is an important methodological requirement in the study of these grammatical lexemes.[117] We should therefore avoid calling them *demonstratives* (a term used in grammars and sometimes also in linguistic works), since this term is confusing. Etymologically, *demonstrative* refers to a deictic function, while these lexemes may also have an endophoric function (indeed, *is* only has an endophoric function).

5.2.1. The degree of grammaticalization in Latin texts

5.2.1.1. Toward the Romance definite article. Even in the latest texts, Latin does not have a third person pronoun in the sense that Romance languages have one. The subject of the third person is most frequently denoted by the verbal ending itself (usually using an anaphoric referential process) or by a subject constituent.

The grammaticalization that led to the Romance clitics[118] (cf. the clitics in the object position in French: *le*, *la*, *les*, *lui*, *leur*, etc.) or affixes (cf. the

117. Fruyt (2003, forthcoming b). See Pieroni (this work, vol. 3; for the developments of *is, īdem, ipse*, especially Section 3.5.3).
118. On the emergence of articles and clitics, see Pieroni (this work, vol. 3, Sections 5.1–5.2).

obligatory affixes in the subject position in French: *il*, *elle*, *ils*, *elles* which function as personal morphemes) had not yet occurred in Latin.

In the same way, *ille* in its adjectival use (as a determiner) has become the definite article in the Romance languages (except East Catalan and Sardinian, where the origin of the definite article is *ipse*), but the Latin texts show no evidence for the full grammaticalization process that led to this. In Latin texts we can only see some antecedents for the tendency itself, in the use of endophoric (ana- and cataphoric) and deictic operators such as *is*, *hic*, *iste*, *ille*, *ipse*, and *īdem*.

5.2.1.2. Toward the indefinite singular article. The same situation holds for the origin of the Romance indefinite article, singular from the numeral *ūnus* 'one'[119] and plural from the preposition *dē* in partitive use.[120]

Late Latin texts offer some occurrences where *ūnus* is not a mere numeral contrasting the number 'one' to another number.[121] In Fredegar (*Chronica* 4,9; 7th c. CE), the queen of Persia, who is a refugee in Constantinople, is hiding her real identity and pretending to be a commoner from the lower social classes: *dixit se* ***unam*** *esse de populo* 'she said she was *a woman* from the common people'. The French translation by Devillers and Meyers (2001: 73) does not even translate *unam*: 'elle s'est présentée comme étant du peuple'. This means that the translators have interpreted *unam* simply as a grammatical and syntactic tool whose function is only to introduce its determiner *de populo*, which refers to the most important information in the queen's utterance. Clearly, the main semantic feature of *unam* here, in the partitive

119. This is a well established grammaticalization path in various languages: Givón (1981).

120. The *Itinerarium Egeriae* has *dē* + ablative: *Itin. Eger.* 3,6: *dederunt nobis presbyteri loci ipsius eulogias, id est* ***de pomis*** *quae in ipso monte nascuntur* 'the priests of this place gave us presents, more precisely *some fruit* that grows on this mountain', which seems to be a direct ancestor of the French indefinite plural article *des*. The prepositional phrase *de pomis* is on the same syntactic level as *eulogias* (accusative object of *dederunt*). This use of the preposition *de* here is probably partitive.

121. Late Latin examples are often ambiguous, since the classical numeral meaning coexists with the weakened meaning: in *Itin. Eger.* 11,3: *dictus etiam psalmus unus*, Fr. 'on a dit un psaume', *ūnus* (just like Fr. *un* here) can be interpreted either as 'one psalm was recited' or 'a psalm was recited'. In both cases, anyway, the denotation of *unus* here is one psalm and not several.

syntagm *unam de populo*, is not the numeral 'one' ('one and only one' as opposed to any other number), but rather an indefinite singular 'anyone, any person' referring to an entity belonging to a set of countable entities, denoted here by the collective noun *populus* (with the partitive prepositional determiner *de populo*).

In Archaic and Classical Latin we already find some occurrences where *ūnus* does not primarily denote the numeral 'one', contrasting with another number, but is used – just as in the above passage from Fredegar – in certain special and restricted contexts where it denotes an entity belonging to a set of entities, this entity being identical to the other entities of the same set. We should therefore translate it into English not only with the indefinite article *a*, but also with a lexical adjective meaning 'ordinary, similar to everybody else': 'an ordinary x'.

In (21), the meaning 'common' given by *unus* is clear, since the coordinated syntagm contains the explicit *homō mediocris* 'a common man'. The speaker (Crassus) here wants to oppose himself – a gentleman of good, common sense who possesses the standard culture, experience and knowledge of the time in his social class – to men who are technicians specialized in a certain profession. In this passage, *quīdam* (*quīdam magister atque artifex*) could be opposed to *ūnus*, as a definite entity (a specific individual) opposed to an indefinite entity (anyone inside a set). Moreover, the use of *quasi* shows that *ūnus ē togātōrum numerō*, literally 'someone among the set of the *togati*', is considered by the speaker to be an unusual expression, which he tones down by using *quasi*. Therefore *ūnus ē togātōrum numerō* may be a formulary sequence – probably more frequent in the spoken language than in the texts – expressing a universal quantifier inside a given set of entities,[122] in the same way as *sīcut ūnus pater familiās* in (22), where the same speaker argues about the same matter. With *ūnus pater familiās*, the speaker (Crassus) probably means an uninitiated person (cf. the French translation *le premier*

122. We prefer the term *universal quantifier* (i.e., any entity in a particular set) rather than *free-choice quantifier* (Bertocchi, Maraldi, and Orlandini, this work, vol. 3), because in this context there is no underlined argumentation that would select the entity in the set that would be the least likely to fullfil the process. The term stresses the fact that the denoted entity is exactly similar to the others and has the same properties.

venu), by contrast to Roscius, considered a specialist in the matter. The literal translation could be 'like any *pater familiās*', 'comme n'importe quel *pater familiās*, comme un *pater familiās* quelconque'.

(21) Cic. *de orat*. 1,111: *moderabor ipse, ne ut* ***quidam*** *magister atque artifex, sed quasi* ***unus e togatorum numero*** *atque* ***ex forensi usu homo mediocris*** *neque omnino rudis uidear*
'I too will restrain myself so as not to seem *a sort of* master and professional, but *just one of all the many Roman citizens, a man modestly qualified through experience of public affairs*, and not altogether untrained' (Sutton and Rackham 1942: 79)
'j'y mettrai de la mesure: je veux paraître non point un homme d'école et de métier, mais *un citoyen comme beaucoup d'autres, un homme pris dans la moyenne, ayant la pratique du forum*, avec quelque peu d'instruction' (Courbaud 1922: 42)

(22) Cic. *de orat*. 1,132: ***de hoc uno*** *minime est facile praecipere non mihi modo, qui sicut* ***unus paterfamilias*** *his de rebus loquor, sed etiam ipsi illi Roscio, quem saepe audio dicere caput esse artis decere, quod tamen* ***unum id*** *esse quod tradi arte non possit*
'as to this particular failing it is especially difficult not only for me, who talks of these matters *like papa laying down the law*, but even for the great Roscius himself; whom I often hear affirming that the chief thing in art it to observe good taste, though how to do this is the one thing that cannot be taught by art' (Sutton and Rackham 1942)
'difficile pour moi qui vous parle *comme le premier venu*' (Courbaud 1922: 49)

In (23), Cicero again uses this weak sense of *ūnus* in a comparison with *tamquam* 'just like, as' (cf. above *quasi*, *sīcut*) for a soldier of a lower rank, therefore a 'common soldier' (*manipulāris*) belonging to a unit of infantry in the Roman army:

(23) Cic. *Att*. 9,10,2: *amens mihi fuisse uideor a principio et me* ***una*** *haec res torquet quod non omnibus in rebus labentem uel potius ruentem Pompeium* ***tamquam unus manipularis*** *secutus sim*
'I seem to myself to have been mad from the very beginning and the one thing that tortures me is that I did not follow Pompey *like*

a private soldier, when he was slipping or rather rushing to ruin' (Winstedt 1970)
'*comme un simple soldat*' (Bayet 1964: 270)

These examples show the coexistence in the same passage of the classical use of *ūnus* as a numeral, often stressing the unicity of something, and, alongside it, the already evolved weak use of *ūnus*.

But this is not yet a real variation situation, since the weak uses are very rare while the numeral uses are very frequent. This is nothing more than a polysemy that appears in very restricted semantic and syntactic contexts and that is, precisely, due to this contextual use: *ūnus* here is a constituent of a syntactic construction denoting a special semantic situation involving a lexical meaning 'ordinary, common, similar to everybody else in the same set'.

This tendency of *ūnus* toward the status of a more grammatical singular indefinite morpheme is shown by its cooccurrence with the (free-choice) indefinite *quīuīs* 'anyone' in the same partitive context for the denotation of an indefinite entity inside a set of similar entities: *quīuīs ūnus ex populō* could be translated literally as 'an ordinary person from the common people', as in (24).

(24) Cic. *Brut.* 320: *summum illud suum studium remisit quo a puero fuerat incensus atque … uoluit beatius, ut ipse putabat, remissius certe uiuere. Primus et secundus annus et tertius tantum quasi de picturae ueteris colore detraxerat, quantum non* ***quiuis unus ex populo****, sed existimator doctus et intellegens posset cognoscere*
'he relaxed that ardour which had burned in him from his youth. He made up his mind to get more enjoyment out of life, as he professed, or at all events to take life more easily. One year, a second, and even a third, lived in this fashion, took away something (like the slow fading of the colours in an old picture), not so much as *an ordinary observer*, but only a trained and intelligent critic, would perceive' (Hendrickson 1939)
'qui échappait *au vulgaire*' (Martha 1923)

Therefore this context (the selection of an entity in a set of similar entities with a semantic evolution toward 'common, ordinary, like any other entity') must have been instrumental in the evolution of *ūnus* and must have

played the role of a metanalysis (for this notion, see Section 2.6) in the very slow process that weakened and grammaticalized the meaning and function of *ūnus*.

A full grammaticalization process cannot be observed in the Latin texts, even in the Late Latin texts.[123] The entry on *ūnus* in Blaise's Late Latin dictionary (1954) shows that this weak indefinite singular function of *ūnus* is documented (since the time of the New Testament) in the texts of Christian authors, but that it is only a minor subdivision in the polysemy and plurifunctionality of *ūnus*, which is still mostly used as it was in classical times.

Our Latin texts illustrate only some forerunners of the future grammaticalized situation, since the clues to the emerging functions are still very subtle in the texts.[124]

A later stage of grammaticalization occurs when there is a manifest variation situation. This variation situation, where the old structure and the new are both attested, is documented only later on for Old French *un*.

But even in Old French, there is not a type of variation where the two variants have the same frequency and can alternate freely. On the contrary, as is shown by Carlier (2001), the new structure is still only a minor variant and not an obligatory one.

Old French *un* is already documented in the earliest texts in Old French with a function other than the numeral. Therefore Old French *un* is considered an article by grammars and linguists. But in Old French, *un* only shows grammaticalization to a certain degree, and it is not the prototypical indefi-

123. This is contrary to what several scholars have said in the past. Nor would we say that spoken Latin already used *ūnus* as an article (contrary to Carlier 2001: 70). We show immediately below that the full grammaticalization of Latin *ūnus* occurred only much later, at the end of the Middle French period (see Carlier 2001: 78).

124. The frequency of these newly evolved occurrences may have been higher in the spoken language (but unfortunately none of the spoken sociolinguistic, diatopic, or diaphasic variations are available to us).

nite singular article[125] realized as Modern French *un*.[126] Carlier speaks of a "stade embryonnaire" in Old French (2001: 70), since the frequency of *un* is low in the texts and it is limited to certain contexts: *un* is optional and motivated by the choice of the speaker. It may be explained by the linguist as carrying out a specific indefinite reference; that is, by using *un*, the Old French speaker/writer introduces into his discourse a precise entity and asserts the existence of this entity (Carlier 2001: 69). *Un* in Old French has a textual role and is often used at the beginning of a sentence and narration, in the subject position with existence verbs and in the object position with verbs denotating creation ('do', 'write', etc.) or perception (Carlier 2001: 67–68).

The next step, according to Carlier (2001: 77),[127] is situated in the second half of the fourteenth century.[128] The major use of *un* by then is as an article, and its numeral use is now only a very minor variant as a remnant of the previous stages.[129]

But full grammaticalization as an article was not to happen until almost two centuries later. It is only in the first half of the sixteenth century, at the end of the Middle French period, that the only role of *un* on its own is as an article (Carlier 2001: 78). It then extended to other types of ref-

125. Instead of debating the period from which *un* could justifiably be called an *article* (which would require us to follow a strict definion of this grammatical category), we would prefer to speak of a *prototypical article* for the Modern French indefinite singular *un*, which displays all the features of a grammaticalized form (including obligatoriness). We could then speak of a *non-prototypical article* for the various stages that preceded full grammaticalization, which probably took place in the first half of the sixteenth century according to Carlier (2001: 78). It is only then that there may have occurred what corresponds to stage III in Heine's (1993) classification.
126. French is the Romance language where this evolution has gone the furthest.
127. Carlier (2001) analyzes some Old and Middle French translations of Classical Latin texts containing *ūnus*.
128. We find only a few occurrences where *un* may be used on its own with its old numeral value, without being reinforced by some other lexical device.
129. Thus the three-stage model proposed by Heine (1993: 49; stage I: only the old structure is documented; stage II: both the old and new structures are documented; stage III: only the new structure is documented) is a global description of the macro-phenomena. But the actual evolution is more complex, with more intermediate stages, especially within stage II, since where two structures coexist, they can have many different statuses.

erence than that dominant in Old French (specific indefinite); *un* was then also able to operate as both non-specific and generic reference (Carlier 2001: 69).

5.2.1.3. Rhythm and scale of the grammaticalization processes. The grammaticalization of the indefinite singular article in French was thus much slower than that of the definite article.

This reminds us of the importance of the notion of rhythm and speed in our understanding of language change. Empirical studies based on concrete data from various languages reveal that the processes of change are much slower than we often tend to believe.

The more our knowledge advances, the more we will probably find that language change shows similarities to changes seen in other sciences such as astronomy, geology, prehistoric archeology, and anthropology. The development of these domains as sciences has shown that they embrace much wider spatial and temporal areas and scales than was thought at first.

In the same way, the scale of language change means that it must be conceived as macro-phenomena, measured not only in terms of human generations, but in terms of even longer periods lasting over many centuries and even millennia.

5.2.2. Grammaticalization and the endophoric-deictic lexemes

We now look at the extent to which Latin endophoric and deictic lexemes have undergone a process of grammaticalization in their formation or their development.

The three lexemes *hic*, *iste*, and *ille* constitute a system at the level of both the signified and the signifier. At the level of the signified, they display complementary distribution in their deictic functions. On the signifier level, they show some common features (a degree of parallelism in their paradigms), but also some differences (at the beginning of each word) that are clear enough to allow them to function contrastively. All three have deictic functions, and two of them (*hic* and *ille*) also have endophoric functions. *Iste*, however, only possesses deictic functions.

The formation of this three-lexeme system in the prehistory of Latin must have involved some morphologization and, hence, some grammaticalization

processes (Fruyt 2009, 2010a). The structural regularities and oppositions seen in Latin must have been created by adaptation and reorganization of the inherited material.

5.2.3. Pronouns and enclitic particles

Latin combined certain pronoun-adjectives by agglutination of the reinforcing postposed enclitic particles.

Some particles were at the end completely incorporated into the pronoun-adjectives that at first they were simply reinforcing: *-pse* in *ipse* and *-em*, subsequently re-analysed as *-dem*, as in *īdem*. In such cases, they were completely grammaticalized and underwent downgrading from a free lexeme (particle, clitic) to a bound morpheme, then to an affix, and finally to a mere phonetic sequence deprived of any significant feature: *-ps-e* in *ips-e*, *ips-a*, *ips-um*, and so on.

The inherited particle *-em* became *-dem* in Latin through reanalysis of the location of the morpheme boundary in the neuter singular *id-em* (with a short *i*), reinterpreted as *i-dem*, and *-dem* was maintained as a morpheme throughout all periods of Latin. While the inherited particle (IE **-e/om*, Skt. *-am*) only had a reinforcing function, Lat. *-dem* took on a more precise semantic value, denoting similarity and identity: 'the same'. This is thus not a case of grammaticalization, since it involves an increase in the number of semantic features, the opposite of semantic weakening. The same increase in its semantic properties is seen in *ipse*, which by its origin was a mere reinforced anaphoric (*is* + particle *-pse*), but which became a focalizer in Latin.

Thus linguistic changes in this area of grammatical lexemes are not always cases of grammaticalization.

Some particles remain morphemes (cf. *-dem*) and have never been downgraded in Latin and incorporated into the preceding lexeme, although this may have taken place later, in the Romance languages.[130]

130. Cf. Section 5.3.

5.2.4. Hic *and grammaticalization*

Hic 'this' from *hi-ce* (as an adjective or a pronoun) functions as a deictic of the first person, referring to the sphere of the speaker. It is mainly linked to *ego* (first person singular), but also to *nōs* (first person plural).

It is a pronoun-adjective **hi- / *ho-* (maybe IE *$g^{h}i$- / *$g^{h}o$-) agglutinated with the deictic particle *-ce* that Latin also used in the strong deictic adverb *ecce* 'here is ...'.[131] *Ecce* played an important and productive role in Late Latin (where it reinforced the deictics: *ecce hic*, *ecce iste*, *ecce ille*) and later on in the formation of the Romance "demonstratives" (cf. OFr. *cist* < *ecce iste* and *cil* < *ecce ille*, etc.).[132]

This deictic particle *-ce* was very often used in the paradigm of *hic* in the archaic period, and at that time it was a morpheme[133] with a deictic function. But later on, in classical texts, it was also lexicalized and used for the purely formal distinction between two different lexeme forms inside the paradigm. For example, the nominative feminine plural form without *-ce*, *hae*, is opposed to the nominative-accusative neutral plural with *-ce*, *hae-c*. The lexicalization and freezing of *-c* (< *-ce*) in one of the two otherwise homophonous forms avoids a homophony that could lead to confusion and lack of clarity. This is a case of grammaticalization, since there has been a downgrading.

5.2.5. Ille *and grammaticalization*

Ille 'that', when used as a deictic operator, functions as the counterpart of *hic* for an entity which is not in the speech situation, and which is often situated far from the speaker. But *ille* also functions as an endophoric; more precisely, its sense is strong enough to refer anaphorically to items situated in a distant context (at least more distant than *is*).

5.2.5.1. Deictic functions of ille. In Plautus and Terence, if the entity designated by *ille* is visible on the stage, then the speaker will probably use the deictic morpheme *-ce* after *ille* (25). It is postposed to *ille* because it comes

131. Cuzzolin (1998).
132. Marchello-Nizia (2003).
133. In the strong sense of the word *morpheme*: a significant semantic unit.

from an enclitic lexeme (deictic particle) that was probably downgraded into a bound deictic morpheme.

(25) Plaut. *Cas.* 35–36: *is una cum patre* ***in illisce*** *habitat* ***aedibus***
'he lives with his father in *that house over there*'

The *-ce* particle was even more grammaticalized when it was lexicalized into the spatial and temporal adverbs derived from *hic*, *iste*, and *ille* because they incorporated a final *-c*, even if they designated places which were not in the sphere of the speaker and not in the range of his vision.

One could understand that *-c* would be maintained as a morpheme in the adverbs derived from *hic* (*hīc* 'here (where I am)', *hūc*, *hinc*, *hāc*), but in the adverbs derived from *ille* (*illīc* 'there (where he is)', *illūc*, *illinc*, *illāc*), the final *-c* is no longer a morpheme. It is probably used only for formal reasons in order to display morphological parallelism in the three-fold adverbial system (*hīc*, . . . / *istīc*, . . . / *illīc*, . . .) and in order to avoid homophony with the forms that belong to the paradigm (especially *illī* and *illā*).

The use of *ille* in Latin for "memory deixis" was probably important in the future development of this lexeme into a definite article in the Romance languages. In this function, it refers (with no anaphor) to an entity which is known by the addressee(s), either by just one individual (cf. Cicero's letters to Atticus)[134] or by the whole speech community (*ille Socrates* 'Socrates that you know well').

In the well-known passage (26) from Plautus that is often used to show the antecedents of the Romance definite article, the adjective *illud* (neuter singular) shows agreement with *stertit* and is used here in a metalinguistic way ('the word *stertit*'), as the direct object of *dicere*. *Illud* is used for a syntactic reason, to allow *stertit* (which is morphologically a verb) to fulfill the syntactic role of direct object. But probably for semantic reasons, it is also used as a memory reminder, a memory deictic, and probably also with the meaning 'that other word' ('it is that other word *stertit* that I wanted to say'),

134. As a memory deictic, *ille* is used by Cicero in his letters to avoid mentioning someone's full name, as part of a "secret language" between the speaker and the addressee (*ille ipse* 'this important man'): Cic. *epist.* 2,9,1: *ego* ***ille ipse*** *factus sum (scis quem dicam)* 'I was transformed into him [the hero] *himself* (you know who I mean)'.

since *ille* is well attested in Archaic and Classical Latin with this meaning (cf. Caesar *civ.*: *illī* ‘the enemies’, ‘(lit.) the others’).

(26) Plaut. *Mil.* 818–819: *sorbet dormiens. :: Quid, sorbet? :: Illud ‘stertit’ uolui dicere*
‘he is digesting (his wine) while sleeping. – What? is he digesting (his wine)? – No, I wanted to say rather *“he is snoring”*’

5.2.5.2. Ille *as an endophoric operator.* In most occurrences, *ille* is a powerful long-distance anaphor, referring to a sequence of the preceding text which is not situated in the immediate context. This is also an important antecedent for the Romance definite articles.

But in the development of Latin, *ille* became a standard anaphor that replaces *is* (as an adjective and as a pronoun), and this is already obvious in the first century CE in the Pompeii inscriptions (79 CE) and in Seneca (27). This use as a standard anaphor must have also been important in the grammaticalization process that led to the Romance definite article (from *ille* as an adjective or determiner) and to the Romance clitics (from *ille* as a pronoun).

(27) Sen. *clem.* 1,5,4: *magnam fortunam magnus animus decet, qui, nisi se ad* ***illam*** *extulit et altior stetit,* ***illam*** *quoque infra ad terram deducit*
‘a magnanimous soul is adequate for a great fortune; if this soul did not succeed in elevating itself to the same level *as this* (*great fortune*) and did not stand high, then it brings *this* (*fortune*) also down to the ground’

Finally, we must take into account the fact that when *ille* took over the endophoric uses of *is*, it also became a standard correlative of the relative pronoun. In this situation, with cataphoric function *ille* announced a restrictive relative clause, which is precisely one of the important functions of the definite article. This standard correlative cataphoric function of *ille* is well documented from the first century CE.[135]

135. It may occur without any anaphor as a memory operator or with an anaphoric link to the preceding context. For example, *Itin. Eger.* 49,3: *spelunca illa in qua docebat Dominus*

5.2.6. Iste *and grammaticalization*

Iste is the deictic of the second person, referring to the addressee(s). It only plays a deictic role and does not assume an endophoric function.[136]

Its frequency in Latin texts is much lower than that of *hic* or *ille*, which is probably due to the fact that it only has deictic functions. But its phonetic substance was strong enough to provide a good contrast to *ille*. It was therefore maintained in the Romance languages. In Late Latin, it is already starting to replace *hic* in some of its deictic and anaphoric uses. But this linguistic change is not a case of grammaticalization.

It is due first to the phonetic erosion of *hic* compared to the stronger phonetic force of *iste*. Since *hic* was on the decline for the specific deictic functions that needed a lexeme with clear contrastive capacities, the reason *iste* was selected for this use (rather than any other lexeme) is that, in the relevant speech situation, the speaker and the addressee were standing next to one another, in the same place at the same moment.[137] In such concrete situations, 'what I see' (designated by *hic*, deictic of the first person singular in Archaic and Classical Latin) was also 'what you see' (designated by *iste*, deictic of the second person in the archaic and classical periods) as well as 'what we see'. Therefore *hic* and *iste* had the same referential sense. But since *hic* was losing its contrastive phonetic force, it was replaced by *iste* without any change in the *designatum* in direct speech, in oral language, and in dialogue situations.

The clue for this development of the deictic function of *iste* is given in the *Itinerarium Egeriae* (4th c. CE), where *iste* is used only in direct speech and alongside the verb *uidēre* 'see' in the second person ('this entity that you see' = 'which is within *your* sight'), as in (28). The distance between the protagonists in the speech situation and the entity mentioned does not seem to be preeminent here: the church mentioned is not immediately next to them, since it is in the middle of the village. The main criterion for the use

apostolos; *Itin. Eger.* 5,2: *uideramus rubum illum de quo locutus est Deus sancto Moysi* 'we had seen the bush from where God spoke to Moses'.

136. While the deictic function is preeminent, some occurrences of *iste* may supplement the deictic function with an anaphoric function.

137. The only exception is in communication through letters.

of *iste* here seems to be that the entity is visible and is therefore conceived psychologically as belonging to the speech situation and to the sphere of both the speaker and the addressee.

(28) *Itin. Eger*. 14,2–3: *ait nobis ipse sanctus presbyter: '**ecce ista** fundamenta in giro colliculo **isto, quae uidetis** … nam **ecce ista** uia, **quam uidetis** transire inter fluuium Iordanem et uicum **istum**'*
'this holy priest said to us: "*These* foundations that you *see* around *this* small hill, *this* road that you *see* between the river Jordan and *this* village"'[138]

This brings us back to the opposition *hic* vs. *ille* – that is, between (a) the pair "speaker + addressee" which participates in the speech situation and (b) anybody or anything else. In the development of Latin, the first part of the opposition, instead of containing two lexemes *hic* and *iste* (with an internal opposition between the speaker and the addressee), had arrived at a point where it contained only a single lexeme: *iste*. In reality, *iste* had kept its previous uses but had added the ones *hic* used to have in spatial deixis. Its frequency increased.

This is not a case of grammaticalization, but an extension of a lexeme that later led to some cases of grammaticalization when *iste* was morphologized as a constituent into various Romance "demonstratives" (cf. *ecce iste* > OFr. *cist*). This development is definitely a change in the grammatical system. It is therefore an antecedent of the twofold deictic system of Old French: *cist* vs. *cil*, based on Lat. *ecce iste* vs. *ecce ille*, whereas there was a threefold deictic system in Archaic and Classical Latin (*hic*, *iste*, *ille*).[139]

138. Cf. *Itin. Eger.* 15,1: *nam **haec** aqua tam grandis et tam pura, quam uidetis in isto uico*; *Itin. Eger.* 13,4: *nam **in isto colliculo**, qui est medio uico positus, … in summitatem **ipsius** fabricam, quam **uides**, ecclesia est* 'on *this* small hill, which is in the middle of the village, on top of it, the building that you *see* is a church'.

139. The deictic sense of OFr. *cist* is already seen in the oldest document in a Romance language, the *Strassburg Oaths* of 842 CE, where Louis says *si salvarai eo **cist** meon fradre Karlo* (Bec 1971: 39) (lit.) 'I will help this my brother Charles'.

5.2.7. *Endophoric* is *(*ea*,* id*) and grammaticalization*

The main reason underlying the increased frequency and, therefore, the functional extension of *ille* (and *ipse* in certain texts) is the decline in use of *is* (*ea*, *id*),[140] first as an adjective and later as a pronoun. But even as a pronoun, *is* probably underwent a certain kind of grammaticalization that led to more restrictive uses and less autonomy in its syntactic combinations.[141]

This decrease of *is* was mainly due to phonetic reasons, since this word was monosyllabic in most of its forms and, moreover, often displayed a short vowel, as in *is* and *id*. The forms with initial *e-*, such as *ea*, *eam*, and *eum*, also became monosyllabic in the spoken language when pronounced with an initial **j-*;[142] this phonetic sequence had a fragile status in Latin.[143]

In the archaic period, the pronoun-adjective *is* is the unmarked standard productive endophoric lexeme.[144] This includes its correlative function, which is a very important part of its productivity and which could be considered as a case of grammaticalization, since this function is more specific than a merely endophoric one. It involves more restricted uses in the two forms of

140. See Pieroni (this work, vol. 3, Section 3.4).

141. Fruyt (2003).

142. When the short vowel /e/ in a hiatus became the (semi)consonant /j/ (also written *y*) in the standard pronunciation, as shown in Lat. *uīnea*, which develops into **wīnia* and **vinja*; after the palatalization due to the /j/, the sequence /nj/ becomes a palatal nasal, exemplified in Fr. *vigne* (cf. the same development in Italian).

143. In the preliterary period, Latin had already found a device for avoiding such words. When they had a word accent, the vowel was lengthened: cf. *tū* (second person singular nominative of the personal pronoun), *mē* (first person singular accusative), etc.

144. Usually the pronoun-adjective *is*, *ea, id* is an anaphoric operator, but it may be a cataphoric operator in a very few occurrences in Archaic Latin. While the usual cataphoric lexeme is the adverb *sīc* 'in the following way', in Cato *agr.* 88,2, the neuter pronoun *id* at the beginning of the sentence announces the following sentences: Cato *agr*. 88,1–2: *Salem candidum* **sic** *facito: amphoram … impleto … ; id aliquotiens facito usque adeo donec sal desiuerit tabescere biduum /* **Id** *signi erit: … ouum demittito; si natabit, ea muries erit … carnem quo condas* 'make white salt *in the following way*: fill up an amphora; do this several times until the salt has stopped dissolving for two days. *This* (the following situation) will be a clue: throw (into it) an egg; if it floats, the brine will be adequate for pickling meat'. Furthermore, the pronoun-adjective *is* was an anaphor or a cataphor (and therefore an endophor) during the whole history of Latin when it was the correlative of the relative pronoun.

the correlative diptych:[145] *quī …, is …* 'who …, this person …' with the word order "restrictive relative clause + main clause", and … *is* … *quī* … 'the person who …' with postposing of the restrictive relative clause.

The decrease of *is* and the necessity of finding its replacement are probably the main reasons for the shifts that occurred in the Latin systems of endophoric and deictic lexemes, and these shifts conditioned the Romance developments.

Is is not represented in the Romance languages, with the exception of some anaphoric and clitic[146] adverbs built on its *i-* stem, such as Fr. *en* < Lat. *inde* (*j'en ai vu deux*) and Fr. *y* < Lat. *ibi* (*j'y suis allé*). This supposes a decrease in its inflected forms over the history of the spoken Latin language, which can be confirmed by the texts. In Late Latin, the degree of literateness of a text can be evaluated by the ratio of occurrences of *is* and *ille* as a standard endophoric operator. The works of Augustine using more elevated language (*de civitate Dei*, etc.) have a larger proportion of *is* than the lower ones (*Sermones*).

By the end of the first century CE in the colloquial language of illiterate speakers, *ille* must have been the productive anaphoric operator for adjectival and pronominal uses as well as for the correlative of the relative pronoun.

When the frequency of *is* decreased in post-Classical Latin, the word first lost its adjectival uses, while the pronominal uses resisted better. Adjectival *is* was mainly replaced by adjectival *ille*. This situation is already attested in Petronius, especially in passages of direct speech of freedmen, who are supposed to speak in a low and sometimes even argot-like register (29). The use of adjectival and cataphoric *ille* as the correlative of a postposed relative pronoun introducing a restrictive relative clause is also already well attested in Petronius (30), and this is probably one of the main clues to the future evolution of *ille* as a definite article in most of the Romance languages.[147]

145. For correlation and the correlative diptych, see n. 106.
146. For the status of clitics: Wanner (1987).
147. When in the *Itinerarium Egeriae ille* is used in this function, most of the time it is placed after the noun, so that *ille* is situated immediately before the relative pronoun: *Itin. Eger.* 37,1: ***ad columnam illam ad quem*** *flagellatus est Dominus*; *Itin. Eger.* 37,3: ***cornu illud de quo*** *reges unguebantur*; *Itin. Eger.* 43,1: ***locum illum euangelii qui*** *semper dominica die legitur*; *Itin Eger.* 1,2: ***deductores sancti illi qui*** *nobiscum erant*; *Itin. Eger.*

(29) Petron. 45,8: *magis* ***illa matella*** *digna fuit quam taurus iactaret*
'rather was *that chamber-pot* worthy of being gored by the bull'

(30) Petron. 74,5: *laceratus igitur* ***ab illo doctissimo coco qui*** *paulo ante de porco aues piscesque fecerat, in caccabum est coniectus*
'so it was cut by *that cunning cook who* shortly before had prepared chicken and fish from a pork, and was thrown into a pot'

Not only did the forms of adjectival *is* disappear quite soon after the classical period, but the forms of pronominal *is* became fewer and fewer in post-classical texts. Documents from the end of the first century CE and the beginning of the second show that, in colloquial low-register Latin, pronominal *ille* had probably ousted pronominal *is*. Petronius already uses *ille* as the productive anaphoric pronoun (31)–(32).

(31) Petron. 37,2: *et modo modo quid fuit? Ignoscet mihi genius tuus, noluisses de manu* ***illius*** *panem accipere*
'what was she only yesterday? Your Honour will forgive me, but you wouldn't have wanted to accept a piece of bread from *her* hand'

(32) Petron. 42,4: *modo modo me appellauit. Videor mihi cum* ***illo*** *loqui*
'just a moment ago he called me. It is as if I were still talking *to him*'

The same situation is attested in the inscriptions from Pompeii as well as in the papyri and ostraca from Egypt.

Some occurrences of pronominal *is* are still found in the *Itinerarium Egeriae*, but they occur either in frozen sequences equivalent to spatial or temporal adverbs (*eō locō* 'there', *eā hōrā* 'then', *id est* 'that is to say', etc.) or in very restricted conditions. As an object, *is* is situated beside the verb (the verbal clause itself usually being very short) and as a correlative pronoun, beside the relative pronoun and usually immediately before it (33).

1,1: ***montes illi, inter quos*** *ibamus*. This could be a way of stressing the strong connection between the correlative and the relative. In one Romance language, Romanian, this word order was grammaticalized and the definite article is postposed to the noun, while in the other Romance languages the opposite word order was grammaticalized, the definite article being placed before the noun.

(33) *Itin. Eger.* 5,2: *uideramus etiam et illum locum in quo steterat ante rubum sanctus Moyses, quando* ***ei*** *dixit Deus*
'we had also seen the place where holy Moses had stood in front of the bush when God said *to him*'

Therefore, at the end of the fourth century CE, pronominal *is* may have undergone a tendency to cliticization. It was still a free lexeme, but it had to be situated near the word that governed it (the verb) or the word with which it was functionally associated (the relative pronoun). It must have been pronounced in the same phonetic constituent as the verb or the relative pronoun, as a unified sequence and without any pause. Thus the remaining forms of *is* must have lost most of their autonomy.

In the Vindolanda tablets, from the end of first century or beginning of the second CE, the few occurrences of *is* are already restricted in the same way as in the *Itinerarium Egeriae*. In (34), there is a dative singular immediately before the verb in a subordinate clause.[148]

(34) *Tab. Vindol.* III:[149] *Maior Maritim(o) s(uo) / salutem / scire te uolui epistulas mihi mis/sas esse ab patri meo in qui/bus scribit mihi ut* ***ei*** *no/tum faciam quid gessero de ...*
'Maior to his Maritimus, greetings. I wanted you to know that a letter has been sent to me by my father in which he writes to me that I should make known *to him* what I shall do about ... '

148. Here *eī* actually stands for *sibi* (an indirect reflexive designating the father as the "speaker" of the utterance introduced by the verb *scribit*). This shows a decrease in use of the indirect reflexive, which was confirmed by other occurrences in Late Latin. While the morphosyntactic category of direct reflexive pronoun was steady in Latin and even developed further in Late Latin, leading to grammaticalization in the Romance languages of a new verbal category (pronominal verbs: Spanish; Italian; Fr. *s'en aller*), the semantico-syntactic category of indirect reflexive pronoun slowly went out of use in Late Latin.

149. See Birley and Birley (1994) for the text of Table III, here citation from sheet 1, lines 1–6.

5.2.8. *Grammaticalization and* ipse

Ipse,[150] according to its morphological origin, is an ana- or cataphoric operator reinforced by an enclitic particle **pse*. *Ipse* comes from the agglutinated sequence of two elements: **is-pse*. Some forms where the declension of *is* and the invariability of *-pse* can still be seen are attested in Archaic Latin: *ea-pse* feminine singular, *eum-pse* accusative masculine singular, and so on. This origin explains the use of *ipse* as a specific type of strong anaphor in some Late Latin texts such as the *Itinerarium Egeriae*[151] as well as in some Romance languages, where it gave birth to some "demonstratives" and definite articles.

The fact that the declension was shifted to the end in *ips-a*, *ips-um*, and so on shows that several grammaticalization processes have occurred. First, instead of two lexemes **ea-pse*, there is just a single lexeme containing two bound morphemes, *ea-* (an anaphoric operator) and *-pse* (a focalizer or intensifier, placing the emphasis on the next word). Then the morpheme boundary disappeared and there is a fusion into a single morpheme in the new stem *ips-(a)*, *ips-(um)*, and so on.

The result of these processes was thus, at the semantic and pragmatic level, the creation of a new word *ipse*, used as a contrastive focalizer, by the fusion of an endophoric lexeme and a particle. On the morphological level, *ipse* results from the incorporation of a particle into a pronoun-adjective. The morphological "center" of this operation is the first element *is*, since *ipse*, which is the arrival point, belongs to the same morphosyntactic class as *is*.

In Archaic, Classical, and post-Classical Latin, *ipse* is an emphatic identifier, an intensifier,[152] or a focalizer placing emphasis on the immediately preceding or following word (35).

(35) Ter. *Eun*. 658 : *hoc quod fecit, res* ***ipsa*** *indicat*
'what he did is revealed by the fact *itself'*

Ipse is used either with an inclusive meaning ('and even X (did this or that)') or with an exclusive meaning excluding alternatives ('X did it himself

150. Fruyt (forthcoming b).
151. Christol (1994).
152. Bertocchi (2000); König (2001).

/ by himself / alone’). *Ipse* introduces a hierarchy:[153] it denotes the most important entity in a group – the chiefs and officers as opposed to the soldiers in Caes. *civ.* 1,84,3: *non esse aut* ***ipsis*** *aut* ***militibus*** *suscensendum*; the general himself (Caes. *civ.* 1,52,4: *Caesar iis ciuitatibus quae ad eius amicitiam accesserant … pecus imperabat; calones ad longinquiores ciuitates dimittebat;* ***ipse*** *praesentem inopiam quibus poterat subsidiis tutabatur* ‘from those communities which had come over to him Caesar demanded cattle; he sent the camp servants away to more distant communities; and he **himself** used whatever means he could to remedy the current lack of food; Carter 1937: 31) when the narration goes back to him, after mentioning the orders he gave to his officers or soldiers; the master when the speaker is a slave (Petron. 63,3; 75,11–76,1: *ipsimus* = *dominus*; *ipsima* = *domina*); the man in charge of the flock (Verg. *ecl.* 3,5); among the animals, the ram as opposed to the sheep (Verg. *ecl.* 3,94–95: *parcite*, *oues*, *nimium procedere: non bene ripae / creditur:* ***ipse aries*** *etiam nunc uellera siccat* ‘beware, o sheep, of going too far: the river bank cannot be trusted: the *ram himself* is still drying his fleece’), the “king” of the bees as opposed to the bees *(rex ipse* in Sen. *clem.* 1,19,3); the real (genetic) mother as opposed to the wetnurse (Plaut. *Men. prol.* 16–21: *mater … quae mammam dabat neque adeo* ***mater ipsa*** *quae illos pepererat*). Inside an individual person, *ipse* denotes the most important part of this person: his physical body as opposed to its attributes, his name (Livy 23,3,5–14), accounts, actions, letters (Cic. *Att.* 15,20,4; 14,10,1).

In the *Itinerarium Egeriae*, *ipse* has such a high frequency that it cannot be random. It is probably linked to the area of Egeria’s origin, which could already have developed many uses for *ipse*, such as antecedents of the definite article in East Catalan and Sardinian and of one of the Spanish “demonstratives”.

But in this text *ipse* is not grammaticalized in such a function. It displays instead a variable situation with several functions: as a standard anaphor and a reinforced anaphor (36); or as a focalizer, emphasizer or intensifier (37)–(38); or in order to indicate the “topic” of the paragraph, the main entity which is the purpose of the paragraph (39)–(40). *Ipse* may also denote identity (41).

153. Fruyt (forthcoming b).

(36) *Itin. Eger*. 52,8: *euntibus nobis commonuit presbyter* ***loci ipsius****, id est de Libiade, quem* ***ipsum*** *nobiscum rogantes moueramus de mansione quia melius* ***ipsa loca*** *nouerat. Dicit ergo nobis* ***ipse presbyter***
'while we were walking, the priest of *this* place (that is, of Libias) [standard anaphor] gave us some information; we had *specifically* asked *him* [strong anaphor] to come with us from the inn because he knew *those* places [standard anaphor] better. Then *this* priest [strong anaphor] says to us'

(37) *Itin. Eger.* 3,6: *dederunt nobis … de pomis, quae* ***in ipso monte*** *nascuntur. Nam cum ipse mons sanctus Syna totus petrinus sit, ita ut nec fructicem habeat, tamen …*
'they gave us some fruit which grew *on the mountain itself.* While the sacred mountain of Sinai itself was totally rocky, so that it could not produce fruit, nevertheless … '

(38) *Itin. Eger*. 2,2: *nam lapis grandis* ***ibi*** *fixus stat* ***in ipso loco***
'a big stone stands *there*, planted (in the ground), *at that very spot*'

(39) *Itin. Eger.* 2,1: ***uallis autem ipsa*** *ingens est ualde*
'*This valley* is absolutely immense'

(40) *Itin. Eger.* 2,5: ***mons autem ipse*** *per giro quidem unus esse uidetur*
'*the mountain*, seen from the surroundings, seems to be just one and the same mountain'

(41) *Itin. Eger.* 4,5: *sed non* ***ipsa parte*** *exire habebamus,* ***qua*** *intraueramus*
'but it was not possible for us to go out (of the mountains) through *the same place through which* we had entered them'

Furthermore, in Late Latin, *ipse* replaced *idem* 'the same', while *idem* went slowly out of use.[154]

Finally, the frequency of *ipse* increased in Late Latin texts (even literary ones), which is probably evidence of a wider range of functions, and therefore of a specific tendency to grammaticalization.

154. For *ipse*, *īdem*, and identity, see Pieroni (this work, vol. 3, Section 3.5).

Ipse is attested in a frozen sequence of several words: *ipse-met* or *ego-met* (Plaut. *Trin.* 937); *ipse ego-met* (Plaut. *Trin.* 929). The sequence "personal pronoun + *-met* + *ipse*" is illustrated by (42)–(43).

(42) Cic. *nat. deor*. 2,32: *nos-met ipsi*
'we ourselves'

(43) Cic. *div*. 2,148: *multum enim et **nobismet ipsis et nostris** profuturi uidebamur, si eam funditus sustulissemus*
'for I thought that I should be rendering a great service both to *myself* and to *my countrymen* if I could tear this superstition up at the roots'[155]

This led to the formation of *-met-ipsum* or **-met-ipsimum*, which gave:[156] Prov. *medeis*, *meteis*, Catal. *mateix*, Occit. *medeis* (from **met-ipse*), OProv. *medesme*, Sp. *mismo*, Port. *mesmo/mismo*, OFr. *medesme*, *meesme*, *meïsme*, Fr. *même* (from the superlative: **met-ipsimus* or *met-ipsissimum*). In these Romance words, the sequence *-met ipse* was grammaticalized, while *-met* and *ipse* were still both morphemes in Cicero.

5.2.9. Conclusion: The existence of a specific group of grammatical lexemes

In synchronic perspective, there is a specific group of grammatical lexemes comprising *is*, *hic*, *iste*, *ille*, *ipse*, *īdem*, *quī*, *quis*, *uter*, *uterque*, *alter*. They display some common morphological features:
– nominative masculine singular in *-e* (*iste*, *ille*, *ipse*),
– genitive singular in *-ius* (where ⟨i⟩ either denotes a consonant – *eius*, *huius*, *eiusdem*, *cuius* – or is part of a vocalic complex item – *istius*, *illius*, *ipsius*),
– dative singular in *-ī (eī*, *huīc*, *istī*, *illī*, *ipsī*, *eīdem*, *cuī*),
– nominative-accusative neuter singular in *-d* (*id*, *hoc* < **hod-ce*, *istud*, *illud*, *idem*, *quod*, and *quid*; with the exception of *ipsum*, *alterum*, *utrum*, *utrumque*).

155. Cf. *sē-met-ipsum* in Tertullian; Greg. M. *Moral.* 5,34: *omnis quippe creatura quia ex nihilo facta est, et **per semetipsam** ad nihilum tendit, non stare habet*.
156. Väänänen (1981: 123 §279).

These lexemes belong to an intermediate area between grammatical lexemes (personal pronouns, etc.) and lexical lexemes (adjectives of the *bonus*, *-a*, *-um* type). This situation was probably felt as abnormal synchronically and there was a tendency to eliminate it in the spoken language. The inflectional endings of the *bonus* adjectives had an influence on these abnormal inflectional endings, as can be seen in Plautus, with some analogical forms such as nominative masculine singular *ips-us*, dative feminine singular *ipsae*.

Nevertheless, in the frequency list of the LASLA (Delatte et al. 1981), these lexemes are among the most frequent of Latin lexemes, and they follow one another sequentially: the frequency order is position 3 for *quī*, 7 for *hic*, 8 for *is*, 9 for *ille*, with the least frequent being *ipse* at 23. This high frequency is an indication of their grammatical status.

5.3. Grammaticalization of particles postposed to deictics and endophors

In Archaic Latin there existed a few monosyllabic and enclitic particles (*-pse*, *-met*, *-pte*, *-ce*, *-te*) that were postposed to personal pronouns, possessive adjectives, or endophoric-deictic pronouns, adjectives, or adverbs. In their original function, they emphasized, stressed, and sometimes even focalized the word they followed and with which they constituted one and the same phonetic unit (sometimes with a rearrangement of the word accent). They are well attested in the dialogues of the archaic (Plautus, Terence, etc.) and classical periods.

But in reality they showed various stages of grammaticalization in Latin: free lexemes as enclitic particles, bound morphemes, affixes, and so on. In all cases they were involved in a general tendency toward full grammaticalization which was eventually completed in the Romance languages.

5.3.1. The enclitic particle -pse

The lexeme *-pse* in Archaic Latin is already grammaticalized, since it is demotivated in *ipse*, which is the result of the agglutination of the endophoric pronoun-adjective *is (ea*, *id)* and the particle *-pse*, as can be seen from some archaic forms: *ea-pse* (nominative feminine singular of *ips-a*), *eum-pse* (accusative masculine singular of *ips-um*).

The enclitic lexeme *-pse* had probably already lost its productivity in spoken Latin of the archaic period. Nevertheless, it is still found in a very few passages in the classical and post-classical periods (such as Cic. *rep.* 3,12: *sē-pse*; Sen. *epist.* 108,32).

Ipse underwent demotivation and reanalysis that led to the transfer of the inflectional element of *is* to the end of the whole sequence. This new agglutinated sequence was then felt to be one single lexeme. The morpheme boundary between *is-* and *-pse* disappeared and *-pse* was no longer a morpheme. It had been incorporated into a new lexeme *ipse*, *ips-a*, *ips-um*.

Nevertheless, the functional semantic and pragmatic value of *-pse* as a reinforcement particle for *is* had been preserved, since the resulting lexeme *ipse* is generally an intensifier or a kind of focalizer.

Ipse is involved in a chain of reinforcements, which is usual for this kind of particle. *Ipse* may be followed by another particle displaying the same reinforcing function: *-met* in *ipse-met* (Plaut. *Amph.* 102–103: *is prius quam hinc abiit* ***ipsemet*** *in exercitum / grauidam Alcumenam uxorem fecit suam*), *ipsī-met* (Cic. *Verr.* II 3,3: *numquam* ***ipsimet*** *nobis praecideremus istam licentiam* 'we would never deprive ourselves of this freedom'). This sequence *ipse* + *-met* was later frozen into a grammaticalized expression "personal pronoun + *ipse* + *-met*" that was the origin of several Romance lexemes.[157]

5.3.2. Grammaticalization and īdem

As seen in Section 5.2.3, the pronoun-adjective *īdem* also comes from the agglutination of *is* and an inherited Indo-European particle **-e/om*, represented in Lat. *-em* (e.g., in *quid-em*). But the productive morpheme in Latin became *-dem*, an identity morpheme: *ibi-dem* 'in the same place'. The morpheme boundary was maintained and the inflectional ending stayed at the end of the first part of the word (acc. masc. *eum-dem*, fem. nom. *ea-dem*, acc. *eam-dem*). It was not shifted to the end of the whole word, unlike what happened for *ipse* after the demotivation of *-pse* (Section 5.2.3).

157. Cf. Sections 5.2.3, 5.2.6: *ipse*. With the same lexemes but in another order, we also have *ipse ego-met* (Plaut. *Trin.* 929). See Fruyt (2011: 40–41).

But *īdem* '(the) same' was slowly replaced by *ipse* 'him-self' in its identity function in spoken Late Latin.[158] This is probably due to the regular phonetic evolution that weakened the dental voiced occlusive consonant *-d-* into a voiced spirant in this position between two vowels. This was sometimes followed, in some geographical areas, by the total loss of this spirant. In contrast, the internal consonant cluster /ps/ in *ipse* was phonetically stronger.[159]

5.3.3. The deictic particle -ce

5.3.3.1. The deictic "adverb" ecce. The deictic particle *-ce* was probably at first an enclitic lexeme. In the adverb *ecce* 'here (is) . . . ', it was postposed to another deictic element and the two of them became one and the same lexeme while the morpheme boundary was probably lost, so that *-ce* in *ecce* was grammaticalized. But the whole word *ecce* was definitely a deictic morpheme. It could reinforce the deictic value of some forms of *hic*, *iste*, and *ille* to designate a visible entity that was within view of the speaker (and generally of both the speaker and the addressee). It was used in narration to stress a new event (44). In this example, the accusative *eccam* could be due to the fact that it is the object of *uideō*. But in Plautus and Terence, this form is always in the accusative, probably a presentative accusative that became frozen, while the forms still show agreement in gender and number (45)–(46). The further stage of freezing for this accusative is attested in passages such as (47), where *eccum* masculine singular (agreement with *Iūpiter*) is frozen in the accusative while the noun *Iūpiter* is in the nominative.

(44) Ter. *Hec*. 854: *Bacchidem* ***eccam*** *uideo*
'*here is* Bacchis, I see her'

(45) Plaut. *Cas*. 574: *sed uxorem ante aedis* ***eccam***
'but *here is* my wife in front of the house'

(46) Plaut. *Mil*. 1215: *sed* ***eccam*** *ipsam*
'but *here* she *is* herself!'

(47) Plaut. *Amph*. 1109: ***eccum*** *Iupiter*
'*Here is* Jupiter'

158. Cf. Sections 5.2.3, 5.2.6: *ipse*.
159. Despite some assimilations or changes to /ss/, /ks/, etc.

In the dramatic context, when the person is seen by the speaker but stands far away on the stage (cf. *ille* + *-ce* in Section 5.3.3.2), *ecce* is combined with the long-distance deictic *ille* in the sequence *ecc(e)* + *ille* (48). When the person designated is in the sphere of the addressee(s), *ecce* is combined with the deictic of the 2nd person *iste* in the sequence *ecc(e)* + *iste* (49). Later on, these last two sequences were totally grammaticalized into the Old French demonstratives *cist* < **ecce ist(e)* and *cil* < **ecce ill(e).*

(48) Plaut. *Merc.* 435: ***eccillum*** *uideo*
‘*here he is*, I see him’

(49) Plaut. *Curc.* 615: *certe* ***eccistam*** *uideo*
‘certainly (you did), *here she is*, I see her’

5.3.3.2. The enclitic particle -ce. The enclitic particle or postposed bound morpheme *-ce* by itself is still a morpheme in Archaic Latin (and in some occurrences in Classical Latin).

In Plautus, *-ce* is postposed to the pronouns, adjectives, and adverbs derived from *hic*, *iste*, and *ille* when they are in deictic use. It indicates that the entity is visible and situated within view of the speaker. As mentioned above for *ecce*, the visible entity thus designated can be in the sphere of the speaker (*hi-ce*), in the sphere of the addressee(s) (*iste* + *-ce*), or can be situated outside the speech situation, provided it is visible to the speaker (*ille* + *-ce*).

But in Classical Latin, *-ce* / *-c* is also a morphological device used for contrast within the paradigm of *hic*. In the nominative plural, *hae* without *-ce* is grammaticalized as the feminine and *haec*, with *-c*, as the neuter form.[160]

The extension of *-ce* to all spatial adverbs (in response to the questions *ubi? quō? quā? unde?*) derived from *hic*, *iste*, *ille*: *hīc*, *hūc*, *hāc*, *hinc*, *istīc*, *istūc*, *istāc*, *istinc*, *illīc*, *illūc*, *illāc*, *illinc* shows that, in such circumstances, *-ce* has lost its deictic value. It is no longer morphemic; rather it is used for its phonetic content on the level of signifier, but no longer for any reason on the level of signified.[161]

160. The particle *-ce* is also morphologized in Classical Latin in *hic*, *haec*, *hoc*, *hunc*, *hanc*, *huīc*, *hōc*, *hāc*, since it is obligatory and does not depend on the choice of the speaker. Cf. Section 5.2.4: *hic*.

161. Cf. Section 5.2.4: *hic*.

5.3.4. *The particle* -met

The enclitic particle *-met* is mainly found postposed to personal pronouns.[162] It reinforces and stresses them: *ego-met* (Plaut. *Trin.* 937), *mihi-met*, *mē-met* (ablative), *tibi-met*, *nōs-met*, *uōs-met*, *uōbis-met*, *sē-met* (Horace, Livy).

Occurrences with a possessive adjective are rare and mainly appear in Apuleius, who is well known for his taste for archaisms. This author uses *tuīs-met* with *tuus* (possessive adjective of the second person singular) and *met* as an intensifier[163] instead of adjectival *ipsīs* (Apul. *apol.* 100,8: *qui pudorem tuum **tuismet litteris** conatus est publice dedecorare* 'who tried to bring dishonor on you publicly by using *your own letters*'), in a passage where *ipse* also occurs several times as an intensifier.[164]

As we have seen with *-pse*, these reinforcing particles have a tendency to be cumulated one after another. *-met* may follow another reinforcing particle *-te* in *tū-ti-met* (Ter. *Haut*. 374; Lucr. 1,102) or be combined with *ipse* in *ipse ego-met* (Plaut. *Trin.* 929).[165]

The sequence "personal pronoun + *-met* + *ipse*" is at the origin of several Romance lexemes and, more precisely, intensifiers. As we have seen, it occurs already in Cicero (*div*. 2,148), where *-met* is a constituent of a "free" combination of morphemes, as illustrated in Livy with the reflexive pronoun (50).

(50) Liv. 28,19,8: *uenisse tempus quo et nefandam commilitonum necem et in **semet ipsos**, si eodem fuga delati forent, instructam fraudem ulciscerentur*
'the time had come for them to avenge the atrocious slaughter of their comrades and the deceit which would have been brought to bear against *themselves* if in their flight they had reached the same city'

162. Leumann (1977: 464 §368).
163. The word *intensifier* is used here in König's sense; see König (2001); Bertocchi (1996); Fruyt (2008d, 2010b).
164. Apul. *apol.* 100,6–9: *hicine filius heres, qui te in **ipso** fratris sui **funere**, … uoluit excludere e domo quam **ipsa** donaueras, … qui maritum tuum … quem, ut **ipse** obiciebat, efflictim amabas, capitis accusauit?*
165. Cf. Sections 5.2.3; 5.2.6; 3.1: *ipse*, *-pse.*

The fact that the editors of Tertullian, in several of his works, write the sequence as a single graphic unit: *sēmetipsum*, *sēmetipsam*, *sēmetipsō*, *sēmetipsā*, *sēmetipsōs*, *sēmetipsās*, *sēmetipsīs* (about 150 occurrences according to Claesson 1975, e.g., Tert. *adv. Marc*. 3,5,3: *siue enim Christus iam tunc in* ***semetipsum*** *secundum nos, siue prophetes de* ***semetipso*** *secundum Iudaeos pronuntiabat*) indicates that they have the feeling that this sequence already represents a single lexeme. They must therefore have considered that a further stage of coherence had been reached compared to the classical period. This would indicate a further stage of grammaticalization.[166]

The texts show both sequences: "personal pronoun + *-met*" and "personal pronoun + *ipse*" (Liv. 28,19,16: *sibi-met*; *sē ipsum*), so that the sequence of three elements (personal pronoun, *-met*, *ipse*) seems to result from a combination of these two binary sequences.

5.3.5. The particle -te

The enclitic particle *-te* is mostly found after a second person singular personal pronoun, where it emphasizes the pronoun *tū*. The sequence could have been analyzed synchronically as an intensive reduplication, since it displays two syllables with the same initial consonant.

It is found, for example, in Plautus, Terence, and Cicero in the nominative *tū-te*. In Cic. *epist.* 1,8,2: ***ego quidem***, *ut debeo*, *et ut* **tute** *mihi praecepisti*, 'For *my own part*, as I ought to do, and as *you yourself* instructed me', the particle *-te* functions as an intensifier[167] in a passage that could have had *ipse*, in contrastive focus with the first person singular *ego quidem*.

Therefore we may draw a parallel between *-te* and *quidem*, which seems to have the same function here. Moreover, the distribution of these two particles is coherent with what we see elsewhere in the texts: while *-te* tends to specialize in the second person singular, its counterpart here, *ego quidem*, is

166. The enclitic particle *-met* is also found with a possessive adjective: Sall. *Iug.* 31,6: *necesse est* ***suō-met*** *ipsi* ***more*** *praecipites eant* 'they will themselves necessarily cause their own destruction' in a reflexive process reinforced by nominative plural *ipsi* (cf. Sall. *Iug*. 8,2).

167. For the notion of 'intensifier', see note 152.

probably a strong form of *e-quidem*, often used to emphasize the first person singular.

This sequence *tū-te* with agglutination of the nominative of the pronoun is well attested in Cicero, where it may be reinforced by *ipse* (cf. Cic. *rep.* 1,59: *tum Scipio: "Vtere igitur argumento, Laeli,* ***tute ipse*** *sensus tui"* 'then Scipio said: "Make use, Laelius, of an argument from *your own* feelings" ' (Keyes 1928).

This would be another clue indicating that the particle *-te* did originally have an intensifier function, but it had probably weakened and therefore was reinforced by *ipse*, just as it was reinforced elsewhere by *-met.*

In Terence and Cicero, the particle may also reinforce the accusative *tē-te*. (51), for example, displays a double contrast between *tē* and *tē-te*, and between an active infinitive *amāre* and a passive infinitive *amārī.*

(51) Ter. *Ad.* 32–33: *uxor, si cesses, aut* ***te*** *amare cogitat / aut* ***tete*** *amari*
'your wife, if you are late, thinks either that *you* are in love with someone or that you are *yourself* loved by someone'

The passages in Cicero displaying *tē-te* usually use the expression as an intensifier, in parallel with other expressions also functioning as intensifiers, as can be seen in (52).

(52) Cic. *Tusc.* 2,63: ***tuo tibi*** *iudicio est utendum;* ***tibi*** *si recta probanti placebis, tum non modo* ***tete*** *uiceris . . . , sed omnis et omnia*
'you must use *your own* judgment; if in the future you are content with *yourself* in approving what is right, then you will not only have won a victory over *yourself*, but over everybody and everything'

Plautus also shows occurrences of the ablative *tē-te* with the same intensifying sense (53).

(53) Plaut. *Epid.* 82: *nisi quid tibi in* ***tete*** *auxilist, absumptus es*
'unless you find some help in *yourself*, you are dead'

The fact that *-te* in this function may be followed by the enclitic interrogative particle *-ne* as in Plaut. *Mil.* 299 and *most.* 369: *tutin?* (= *tu-te-ne?*) shows that *-te* is more tightly linked to the personal pronoun and more grammaticalized than *-ne*, which still has a certain autonomy in the position it occupies,

since it may be postposed to all kinds of words depending on the informative structure of the question.

This reinforcing particle *-te* after the second person pronoun may also be followed by another reinforcing particle *-met*: Ter. *Haut.* 374: *tūtimet* = *tū-te-met*; Lucr. 1,102: *tūtemet.* This double reinforcement probably means that *-te* was more grammaticalized than *-met* and that its function may have been weakened, so that it did not have sufficient effect as a reinforcement particle, with the result that another reinforcement particle was necessary.

As we have seen, the reinforcing particle *-te* occurs cumulatively with several other kinds of intensifiers. It is not only *-te* that appears this way, as can be seen in (54), where the personal pronoun is reinforced by the adjective *sōlus* 'alone': *sōlī tibi* in the dative singular meaning 'for you alone, for yourself exclusively'. Thus here it displays the function of an exclusive[168] intensifier. The accumulation of three intensifiers is also seen in *tū-te ipse* (Verg. *ecl.* 3,35–37).

(54) Plaut. *Mil.* 282–283: ***tu-te*** *scias* ***soli tibi*** */ mihi ne dixis, scire nolo*
'*you then* keep (this information) for *yourself*; don't tell me, I don't want to know'

But *-te* was not very productive in Latin and its frequency was low. It is therefore difficult to know the degree of grammaticalization it had reached. It could have become a bound morpheme from the clitic lexeme it used to be. Its distribution was very limited, occurring not merely with personal pronouns, but one personal pronoun in particular, so it could even have acquired the synchronic status of an affix. But it was still a morpheme and the morpheme boundary was clear.

5.3.6. The particle -pte

The enclitic particle *-pte* is mainly found after possessive adjectives. Since it emphasizes them, it therefore emphasizes a possessive relationship, mostly for inalienable possession (body parts, etc.): *tuō-pte* (Plaut. *Capt.* 371; *Mil.*

168. According to König's distinction between the inclusive and exclusive values of intensifiers: see references in n. 152.

605), *tuā-pte* (Plaut. *Trin*. 666); Cic. *de orat*. 3,10: *suā-pte manū* 'by his own hand'; Cic. *nat. deor*. 1,69*: suō-pte pondere* 'by its own weight'; Liv. 1,18,4: *suō-pte igitur ingeniō* . . . .

The archaic period also provides a few occurrences with a personal pronoun:[169] *mihi-pte* (Cato apud Paul. Fest. 154,11; M = 140,32 and 141,9 Lindsay), *mē-pte* (acc.: Plaut. *Men*. 1059).

5.3.7. Conclusion

Compared to *is*, from which they are derived through the agglutination of an enclitic particle, *ipse* and *īdem* have undergone functional and semantic specialization. This appears to be the opposite phenomenon to grammaticalization, since the process goes from the purely grammatical (an endophoric *is* + particle) to a more lexical area.

Although *ipse* and *īdem* have similar origins, they diverged in Latin, one becoming an intensifier and the other a morpheme expressing identity. But in spoken Late Latin, *īdem* must have been slowly replaced by *ipse* or a combination of *ipse* and other elements.

From a grammaticalization perspective, the particle *-pse* was completely grammaticalized in preliterary Latin and incorporated into *ipse*, while the particle *-dem* was always maintained as a morpheme for as long as *īdem*, *ibi-dem*, and so on were in use.

The enclitic particles in combination with personal and deictic lexemes that have been illustrated here display various degrees of grammaticalization and have reached various stages of grammaticalization. But all of them illustrate the same development. They are involved in the same downgrading sequence of lexical and morphological units.

169. Leumann (1977: 466): occurrences of *-pte* after a personal pronoun are rare. It has been suggested, without any certainty, that Lat. *-pte* with the meaning '-self' (Ger. *selbst*) was related to IE **poti-* (Lat. *potis*, *-e* adjective 'capable of, who is able to', which played a role in the formation of the modal verb *possum* 'can') and IE **potis* 'owner, master' (noun).

6. Grammaticalization and the formation of the verbal paradigm in Latin

6.1. Paradigmatization

The verbal paradigm is an important locus for grammaticalization or, more precisely, for "paradigmatization", the entry of a new category into the verbal paradigm.[170] The creation of new forms is necessary to fill the gaps in the verbal paradigm and thus to obtain the necessary linguistic tools for the expression of tense, mood, modality, voice,[171] and so on.

Aspecto-temporal series in the Indo-European languages have been created separately within each language by the grammaticalization of various lexical or lexico-grammatical lexeme forms. Quite often, the signifier of such a series has a periphrastic origin, namely, the merging of several words into one and the same lexeme form. The English future tense, for example, comes from the grammaticalization of two modal verbs, *shall* (a verb initially denoting a deontic modality) and *will* (a verb meaning 'want', cf. Ger. *wollen* 'want') combined with the infinitive which was the complement of the modal verb: Eng. *I shall come*, *I will come*, *you will come.*

Periphrastic origin may also be supposed in Latin for the *-b-ō*, *-b-is* futures (*amābō*, *delēbō*) and the imperfects (*amābam*), since the synchronic *-b-* may come from one of the Indo-European roots meaning 'be' (see Section 6.1.1), although synchronically each form of the series constitutes just one word. But the periphrastic origin containing the other Indo-European root for 'be' (*h_1*es*-, Lat. *es*- in *es-t*) is still synchronically visible in the passive perfectum (*amātus sum*, *amātus eram*, etc.). The future passive infinitive (*audītum īrī*) involves the grammaticalization of the motion verb *īre* 'go',[172]

170. Fruyt (1992).
171. The morphology of the passive voice often involves grammaticalization processes. Cf. Haspelmath (1990).
172. The grammaticalization of motion verbs is a well-documented phenomenon in language, especially in the Romance languages: cf. the use of the verb Fr. *aller* 'go' for the expression of a near future tense: *je vais faire*. For Italian, cf. Giacalone Ramat (1995; motion verb + gerund).

but this verb was probably demotivated in this form and synchronically no longer recognized by the linguistic community.

If all Indo-European languages show this process to some degree in the construction of their verbal paradigm, Latin probably shows a higher degree of innovation, due to a clear tendency toward the regularity of morphological (both nominal and verbal) paradigms. We show in Sections 6.2, 6.3, 6.4 and 6.5 how Latin created its various infinitives and verbal nouns (supines) through transcategorization, an evolution from a nominal to a verbal form.

But Latin in the post-classical period underwent a phonemic shift that especially affected the vowels.[173] Combined with the phonetic erosion of the final syllables, this led to the neutralization of some inflectional morphemes and thus to the decrease and finally the disappearance of the morphological categories expressed by these inflectional endings: the opposition between active and passive present infinitives (Section 6.6.1) and between the participles (Section 6.6.2).

These neutralizations involved the necessity of creating replacement tools. We believe that we can see in very Late Latin some indirect and underlined clues for the emergence of a new category, one that was to be fully employed only in the Romance languages: the past active participle of the type Fr. *ayant chanté* (from the verb *chanter* 'sing') (Section 6.6.2).

It will also be shown (Section 6.1.2) that Latin already displays the forerunners of a type of verb to be found in the Romance languages: reflexive verbs derived from the grammaticalization of the reflexive pronoun.

6.1.1. Verbal periphrasis before the first Latin texts

A good example of grammaticalization[174] is the process that explains the origins of the indicative imperfect in all the Latin conjugations (*amā-bā-s*,

173. See Väänänen (1981: 30) for the various changes of the vocalic system in the Romance languages in stressed open syllables. In the other positions in the word, the vocalic shifts and neutralizations must have been even more important.

174. We have already mentioned (in Section 4.4.3 on negation) the emergence of new prohibition periphrases: *nōlī* singular / *nōlīte* plural + infinitive; *dēsine* + infinitive 'stop (doing)'; the lexical verb *cauēre* 'be alert, be careful that something doesn't happen' is grammaticalized in *cauē nē* + subjunctive or *cauē* + subjunctive. Cf. another perphrasis in *cale-faciō*: Fruyt (2001).

monē-bā-s, *legē-bā-s*, etc.) and of the indicative future in the first two conjugations (*amā-bō*, *amā-bi-s*, *amā-bi-t*; *monē-bō*, *monē-bi-s*, *monē-bi-t*).

These probably result from the grammaticalization of a prior syntactic sequence that was morphologized into a verbal periphrasis. This periphrasis was made up of two agglutinated elements: the first is the stem, and the second is a reduced form of the Indo-European root *b^hew-H-* 'be, become', conjugated in the preterite (with a preterite morpheme *-ā-*, whatever its origin in Indo-European) or in the present subjunctive (a short vowel subjunctive in first person singular *-ō*, second person singular *-e-* > *-i-*, etc.) for the imperfect and future respectively.

The *-b^h-* origin of the Latin future in *-b-* is confirmed by the Faliscan future forms *carefo* (equivalent to Lat. *carēbō)* and *pafo*, *pipafo*, future forms of the verb 'drink' (Leumann 1977: 577–578; Meiser 1998: 200). This origin of *-b-* both in all the imperfect forms and in some future forms is the traditional explanation according to which the first element *amā-*, *monē-*, and so on comes from a previous nominal form.

The exact nature of this nominal form, however, has been strongly debated. Several hypotheses have been suggested, such as a present participle, an infinitive or verbal noun in its old nominal form in *-*si* > *-se (amā-si*, **age-si)*, a verbal stem as an infinitive, or a verbal noun in long *e*.[175]

Whatever the answer, the common denominator in these interpretations seems to be that the *-b-* forms result from a periphrastic sequence containing a nominal form, whatever its origin[176] – and we personally favor a process noun or a verbal noun[177] as the ancestor of the Latin infinitive. This nominal form was then agglutinated to the 'be' root in a reduced form.

175. Cf. Leumann (1977: 577–579, esp. §428,II.B, p. 579); see Section 6.2 below.

176. There seems to be a tendency in favor of the verbal noun in **-s-i* (morphologically a locative infinitive) as mentioned by Leumann (1977: 579): **amā-si*, **age-si*.

177. For example Eng. *administration* is the process noun of the verb *administer*. It has the same semantico-referential sense as the verb, expressed in another morpho-syntactic category. The three following clauses have the same denotative sense: *the administration of the department is done by Mr. X*, *the department is administered by Mr. X*, and *Mr. X administers the department.* The noun *feeling* functions as the process noun of the verb *feel*, expressing the same senses in the nominal category as the verb *feel* in the verbal category: *she feels it is going to rain* and *she has a feeling it is going to rain* have the same denotative sense. The French noun *interdiction* is the process noun of the verb *interdire*.

In the completed stage of this agglutination process, these two elements were phonetically fused and became a single phonetic and accentual unit. Then, as is usual with the reduction of agglutinated sequences, the final syllable of the first element disappeared.

6.1.2. The origins of reflexive verbs in the Romance languages

The Romance languages developed a new verbal category, the reflexive verb, which is well documented in Spanish,[178] French, and Italian. The reflexive pronoun was lexicalized and grammaticalized so that it then belonged to the lexeme itself and became a lexeme constituent. Some minimal pairs show an opposition between the bare verb and the reflexive form of the same verb. They then became two different lexical items with different meanings and constructions : Fr. *aller* 'go' vs. *s'en aller* 'go (away), depart, leave', *perdre* 'lose' vs. *se perdre* 'get lost, be wasted', *voir* 'see' vs. *se voir*, which is used as a passive semi-auxiliary in a passive semi-periphrasis *se voir* + past passive participle or present active infinitive: *elle s'est vue contrainte à renoncer* is the denotative equivalent of *elle fut contrainte à renoncer* (passive voice) 'she was obliged to renounce'; *il s'est vu citer en justice* is denotatively synonymous with *il fut cité en justice* (passive voice) 'he was prosecuted' or *on le cita en justice*.

This last example illustrates the fact that in Spanish, French, and Italian, reflexive verbs are used without any agentive meaning.

The increasing use of the reflexive form of some verbs is already seen in Late Latin (6.1.2–6.1.2). But in Late Latin, *sē sedēre* is still a morphological variant for *sedēre* 'sit down', and the impersonal meteorological *sē facit*

Il est interdit de stationner has the same denotative sense as *interdiction de stationner* (the latter phrase being restricted to posters or signs *in situ*). In Latin as in most Romance languages, most verbs have a process noun associated with them as a nominal form denoting the same process. This role is usually played in Latin by the *-tiō, -tiōn-is* feminine suffixed nouns, often derived from a verbal stem in long *a* or long *i* (*audī-tiō* 'the fact of hearing' vs. *audī-re* 'hear'). Some Latin process nouns are suffixed with *-tu-*: *aduentus, -ūs* masculine 'arrival' vs. *aduen-ī-re* 'arrive'.

178. Wright (1995, 2006).

remains a variant of *facit* or *fit* and functions as the passive counterpart of *facit* (for the semantic weakening and grammaticalization of *facere*, see Section 7.4.3). These are the antecedents of the morphologization of the reflexive construction in the Romance languages.

(55) *Itin. Eger*. 36,5: *alloquens dicit eis: 'Ite interim nunc unusquisque ad domuncellas uestras,* ***sedete uobis*** *et modico, et ...'*
'he says to them: "Go now, each of you, to your dwellings, *rest* for a while and ..."'

(56) *Itin. Eger*. 27,3: *haec ergo dum aguntur,* ***facit se*** *hora quinta; lucernare hoc idem hora sua fit*
'the time it took for all this to be done, *it was* already the fifth hour. The lighting of the lamps also takes place at that hour'

6.2. Transcategorization: From the nominal to the verbal form

Grammaticalization also explains the origin of the verbo-nominal categories within the verbal paradigm: the formation and development of the Latin infinitives, supines, and participles. All of these involve transcategorization, a shift from a nominal to a verbal form, since a nominal (noun or adjective) form has been morphologized into a verbal category.

The inherited Indo-European process suffix **-tu-* yielded a "verbal noun" in several Indo-European languages (cf. one of the infinitives in Sanskrit, *-tum*, and the infinitive in some Italic languages). Latin developed this formation into a supine, a verbal noun even if it is not called an "infinitive". In this supine category, the process noun was frozen in at least two cases, as a directional and purpose accusative (*-tum /-sum*) and as a prospective dative (*-tū* / *-sū*). These frozen forms were morphologized as part of the verbal paradigm. This is a case of grammaticalization, since the new forms have a very restricted distribution.

The grammaticalization that led to the formation of the Latin infinitives in *-se / -re* (present active infinitive: *es-se*, *amā-re*; perfect active infinitive: *amā-u-is-se*) was also a case of transcategorization from a nominal to a verbal form. Latin probably used a frozen form of a locative singular ending in **-i*

(short *i*) after an -*s*- that could be the remnant of a nominal sigmatic suffix (perhaps the IE *-*es-/-os*- suffix).[179]

6.3. The formation of the Latin infinitives

6.3.1. Grammaticalization of process nouns: From a nominal to a verbal paradigm

Latin infinitives,[180] just like the infinitives in the other ancient Indo-European languages, come from the grammaticalization of process nouns frozen in a particular case. This represented a new category, a verbal noun introduced into the verbal paradigm.

Latin had a tendency to develop a complete paradigm for the infinitive mood, in all tenses (present, perfect or past, future) and for both voices (active and passive).

6.3.2. Locative and dative infinitives

In Latin, the process nouns from which the present infinitives originated were probably frozen in the locative singular (-*se* in the active voice: *ag-e-re*)

179. According to Leumann (1977: 580 §429), the creation of the -*se* < *-*si* active infinitive morpheme (following the infectum stem: *es-se* or the perfectum stem: *fu-is-se*) started in the third thematic conjugation, where the active present infinitive came from a nominal form, namely the locative singular of a neuter noun containing the sigmatic suffix *-*es-* / -*os*-. The starting point was the infinitive **genere*, which is to be restored from the documented forms of this verb (*gen-it, gen-unt*, and the passive infinitive *geni* attested only in Varro and Lucretius). This infinitive *genere* was the result of a reanalysis of the nominal form **gen-es-i* (that was later on to give *genere*), ablative singular of *genus, -er-is*, where the **e* of the suffix *-*es*- was reinterpreted as the thematic vowel of the verb, leading to the emergence of a new infinitive morpheme *-*si*, which later spread to other verbal stems such as **amā-si* (> *amā-re*). For the locative origin of the active infinitive morpheme and the dative origin of the passive present infinitive morpheme, see also Meiser (1998: 225 §147) and Section 6.1.1 above.

180. See Sections 6.1, 6.1.1, and 6.2; and Fruyt (1996a, 1996b).

and the dative singular (-*ī* in the passive voice: *ag-ī*). At first, their semantic and syntactic functions were those of dative- and locative-infinitives.[181] The present active infinitive in *-se / -re (es-se*, *amā-re)* with a locative origin *(*-s-i*) and the present passive infinitive in long *-i* (*ag-ī; audī-r-ī*) with a dative origin already exist in the earliest Latin texts. But since the formation of the Latin infinitives occurred at an earlier period of Latin, we can only use reconstruction to formulate this hypothesis about their origins. But whatever adaptations happened in the early distribution of these morphemes, we can be quite sure that they had a nominal origin.

In the same way, we can suppose that the origin of the Latin infinitive clause (already grammaticalized in the first Latin texts) is to be found in the reanalysis of the two objects of the main verb (the second object being a process noun) into a subordinate clause containing an accusative subject (denoting at first the agent of the infinitive-verb) and an infinitive verb.

6.4. The supine: From a nominal inflected free form to a verbal frozen grammaticalized form

A clear case of paradigmatization (although it is not mentioned by Meillet) appears in the origin of the Latin supines.

The Latin supines are frozen nominal forms of verbal nouns suffixed with IE *-*tu*-, Lat. -*tus*, genitive singular -*tūs* masc., with a phonetic variant -*sus*, -*sūs*. These became verbal forms. The freezing occurred from a directive accusative in -*tum* (*īre quaeritum aliquid* ‘go and look for something’ related to the verb *quaerere* ‘try to find, look for’; *uocāre aliquem uēnātum* ‘call someone to go hunting’ related to the verb *uēnārī* ‘hunt’); a prospective dative in -*tū* (*difficile dictū* ‘difficult to say’); and possibly from an original ablative in -*tū*. The original senses of these three cases were important in the transcategorization process and they were kept by the verbal forms.

The same *-*tu*- suffix was also maintained in Latin in its inherited function, and it occurs in the formation of many process nouns. These suffixed

181. Fruyt (1992, 1995, 1996a, b).

nouns in *-tus* were often synchronically related to verbs and functioned as verbal nouns (*cantus*, *-ūs* 'song, the fact of singing' vs. *canō* 'sing').[182]

6.4.1. Ambiguity in the intermediate stages between noun and verb

The boundary is not always very clear between the **-tu-* forms that were real nouns and those that were verbo-nominal forms. Some forms ending in *-tum* (accusative) or *-tū* (ablative) may be ambiguous. Normally the dative forms are less ambiguous, since the verbal supine is in *-tū*, while the noun usually has its dative in *-tuī*.

However, there is a variant for the nouns with an *-ū* dative.[183] According to Gell. 4,16,4–9, the *-ū* nominal dative was normal and, in particular, Caesar uses *ornātū*. Moreover, *cornū* as a dative singular is illustrated in Caes. *civ.* 3,89,3: *sinistro cornu Antonium … praeposuerat* 'he had given command of the left wing to Antonius'. The *-ū* dative may have been more common in the spoken language and is also attested in pre-classical texts (Ter. *Ad.* 63: *uestitu nimio indulges* 'you are too easy-going for his clothes') and in classical texts at levels of speech that seem to be closer to the spoken language, for example in a letter written by Cicero to his freedman Tiro or in a letter to Cicero written by Plancus.[184]

6.4.1.1. An "ablative supine"? There are ambiguous situations in Plautus with the *-tum* supine governed by a motion verb (Section 6.4.1.2). But the most enlightening example of ambiguity is to be found in the original ablative in *-tū* governed by a motion verb in the type *redeō opsōnātū* 'I come back

182. The nouns in *-tus, -ūs* also denote concrete entities. Although the *-tus* suffix was not really productive any longer in Latin in the creation of new lexemes (except in certain circumstances: Fruyt 2002), it played an important role in the Latin lexicon through the many lexemes in which it appeared and through the high frequency of some of them.

183. Cf. Leumann (1977: 355 §316.2.b, 442–443 §359: Dative).

184. Cic. *epist.* 16,4,2: *illud, mi Tiro, te rogo,* ***sumptu*** *ne parcas ulla in re* 'this one thing, my dear Tiro, I beg of you to do: spare no *expense* in any respect'; Cic. *epist.* 10,24,3 (the author of the letter is Plancus): *non enim … magna subsidia respublica habet expedita quibus subito* ***impetu*** *ac latrocinio parricidarum resistat* 'the state has no large reserves ready to take the field, wherewith to resist any sudden *attack* or raid on the part of these murderers (of their country)'.

from buying food in the market / purchasing provisions' ((57)–(58)–(59)), where *opsōnātū* is the original ablative complement of *redeō* 'come back'. It could be interpreted as a form of the noun *opsōnā-tus*, *-ūs* masculine 'the fact of going to the market to purchase provisions'. It is a **-tu-* suffixed process noun derived from the verbal stem of *opsōnā-rī* 'go to the market to purchase provisions'.

(57) Plaut. *Men.* 276–277: *prius iam conuiuae ambulant ante ostium / quam ego* ***opsonatu*** *redeo*
'the guests are already walking in the front door and I have not yet come back *from the market*'

(58) Plaut. *Men.* 288: *nunc* ***opsonatu*** *redeo*
'now, I am coming back *from the market*'

(59) Plaut. *Cas.* 719: *redit eccum tandem* ***opsonatu*** *meus adiutor*
'here is my assistant coming back *from the market / from purchasing the provisions*'

But *opsōnātū redeō* has also been considered an ablative supine in *-tū*.[185] In such situations, a third supine alongside the *-tum* (accusative) and *-tū* (dative) supines could be recognized.

These cases are actually ambiguous and were probably felt as such synchronically by the speech community. They clearly show the intermediate stage during which a process noun was becoming a verbal noun and a verbo-nominal form of the verb.

Example (60) shows the directional opposition between the place to which one goes and the place from which one comes (usually expressed by the adverbs *quō* and *unde* respectively). The same symmetrical construction occurs when a directional accusative *īre cubitum* 'go to the lying-down position' is opposed to an origin ablative *cubitū surgere* 'get up from the lying-down position'. If we consider *cubitum* in *cubitum eat* to be a supine, then we should give the same status to the symmetrical *cubitu* in *cubitū surgat*.

185. While Kühner & Stegmann (1914, II, 1, p. 724 § 128, 3, a) see a real ablative supine in these examples, Ernout & Thomas (1953) do not mention such cases, and the *Oxford Latin Dictionary* classifies them within the article on the noun *opsonatus*.

(60) Cato *agr.* 5,5: ***primus*** *cubitu* ***surgat, postremus*** *cubitum* ***eat***
'he must be the first to get up and the last to go to bed'

We could ask the same question (nominal form or supine?) about *nātū* in the lexicalized expression functioning as a single lexeme (= a complexeme) *maiōrēs nātū* 'elders, ancestors'. *Nātū* in (61) is an instrumental-ablative related to the noun *nātus*, *-ūs* masculine 'birth'. But this noun is in fact only used in this instrumental-ablative case and in this semantic type of expression (*minimus nātū*, *grandis nātū*).[186] This is a significant fact because it shows that these **-tu-* nouns had a special status in the Latin lexicon because they had a special status in the verbal paradigm. They were not always productive nouns with a full paradigm, and some of them were defective nouns limited to an ablative case used only in set expressions. This can be shown with other **-tu-* nouns attested in Plautus or Terence. On the other hand, it would be difficult to consider *nātū* another kind of ablative supine. Therefore *nātū* here is a lexicalized **-tu-* noun, while the supines are morphologized **-tu-* nouns. But both cases reach the outer limits of the nominal area of the lexicon.

(61) Cic. *Cato* 43: *saepe audiui a maioribus* **natu** *...*
'I often heard my elders say ...' (lit. 'greaters from the birth point of view')

6.4.1.2. Ambiguous cases with the -tum *supine.* The nominal *-tum* form from a **-tu-* noun and that derived from the verbal *-tum* supine do not have the same syntactic distribution. The *-tum* noun behaves like a noun (with a complement in the genitive, etc.), while the *-tum* supine behaves like a verbal form when the grammaticalization process is complete and is found in the same constructions as the verb it belongs to.[187]

Nevertheless, there are also ambiguous cases where the accusative *-tum* supine is governed by a motion verb. There are cases here of ambiguity between nominal and verbal status.

186. Fruyt (2002).
187. It is attested in the archaic period with an object in the accusative, a directive adverb, an object in the dative, a completive clause, etc.

We begin with *opsōnātum*, since it is symmetrical to *opsōnātū* (Section 6.4.1.1). The word *opsōnātum* is a supine in *mittere aliquem opsōnātum* 'send someone to buy food (on the market)' (62). But *opsōnātum* is the noun *opsōnātus*, *-ūs* masculine 'purchasing of provisions, going to market' in the following passages, since it is the object of *pergō* 'continue' (and not of a verb involving motion) in (63) and since it is governed by a preposition in (64). The ambiguity comes from the fact that the noun in *-tus*, *-ūs* masculine is in use in the same synchrony as the supine. The same double situation is attested for the word *mercātum.* It is the supine of the verb *mercārī* 'buy, purchase, trade' in (65), but in another syntactic context, it could also be the accusative of the noun *mercātus*, *-ūs* masculine 'fact of buying, trading; trade; market'.

(62) Plaut. *Cas*. 440–441: *uolui* ***Chalinum*** *…* ***mittere*** */ tecum* ***opsonatum***
'I wanted to send Chalinus to the market with you'

(63) Plaut. *Mil*. 749: *nunc quod occepi* ***opsonatum*** *pergam*
'I will now continue what I started to do, go to the market'

(64) Plaut. *Truc*. 740: (*iussi*) *ei quinque argenti deferri minas, praeterea unam in* ***opsonatum***
'(I told) him to bring five minas,[188] and also one for *purchasing the provisions*'

(65) Plaut. *Persa* 322: *dominus me boues* ***mercatum*** *Eretriam misit*
'The master sent me to Eretria *to buy* cattle'[189]

In technical military vocabulary, which is sometimes quite conservative, some lexicalized sequences (complexemes) function as a single verb: *aquātum īre* 'go for water', *lignātum īre* 'go for wood', *pābulātum īre* 'go for forage'.[190] The forms *aquātum*, *lignātum*, *pābulātum* are ambiguous: they could be supines of the deponent verbs *aquārī*, *lignārī*, *pābulārī* or nominal forms

188. Unit of currency.
189. Where the verb *mittere* 'send' has three complements (*mē*, *mercātum*, *Eretriam*) and where *boues* is the accusative object of the supine *mercātum.*
190. The derivation chain is: *aqua* 'water'→ *aquā-rī* 'go for water' → *aquā-tus*, *-ūs* masc. 'fact of going for water'; *lignum* 'wood' → *lign-ā-rī* → *lignā-tus*, *-ūs* masc.; *pābulum* → *pābul-ā-rī* → *pābulā-tus*, *-ūs* masc.

of the process nouns *aquātus*, *-ūs* masculine, *lignātus*, *-ūs*, *pābulātus*, *-ūs* lexicalized as constituents of a verbal complexeme and frozen in the accusative case.

6.4.2. Supine and grammaticalization

6.4.2.1. Grammaticalization in the emergence of the supine. In any event, the fully grammaticalized supines are clearly verbal forms and the formation of the supines is a case of grammaticalization, since the new items are subject to stronger lexical, semantic, and syntactic constraints.

In the archaic period, the *-tum* supine as the complement of a motion verb 'go', 'come', 'send' may govern the same kind of complementation as the verb in general. Moreover, the person who is the agent of the motion process is also the agent of the process denoted by the supine. Third, the supine itself denotes a process which is an action: *īre quaeritum aliquid* 'go to fetch something, go and fetch something'.[191] In Plautus, a wide variety of actions are involved: *adiūtum* 'go (or come) to help someone', *ambulātum* 'go for a walk'.[192]

6.4.2.2. A different case: the -tiō *nouns.* Although both IE **-tu-* and **-ti-* process noun suffixes were inherited by Latin, where they produced the suffixes masc. *-tus* (gen. *-ūs*) and fem. *-tiō (-tiōn-is)*[193] respectively, they did not subsequently undergo the same development.

191. Cf. *(ab-)īre arcessitum aliquem* 'go to look for someone, go and look for someone'; *uocāre aliquem uēnātum* 'ask someone to come hunting'.

192. Cf. *captātum, extentātum, ostentātum, uāpulātum, ex(s)ulātum* 'go into exile' (*exulāre* 'live in exile'), *coctum, coquīnātum* (*coquere, coquīnāre* 'cook'): Plaut. *Bacch.* 1203: *ite intro* ***accubitum*** 'go inside and sit at the table'; Plaut. *Most.* 334: *domum eo* ***comissatum*** 'I am going home to have a party'; Plaut. *Cas.* 525: *nam tuus uir me orauit ut eam isto ad te* ***adiutum*** *mitterem* 'for your husband asked me to send her to you, where you are, in order to help you'. The process nouns involved here are: *accubitus, -ūs* masc. 'fact of *accumbere*', *cōmissātus, -ūs* masc. 'fact of *cōmissārī*', *adiūtus, -ūs* masc. 'fact of *adiuuāre*'.

193. The **-ti-* suffix was reinforced in Latin by another process noun suffix *-ōn-* or *-iōn-* (attested in *obliu-iō, leg-iō,* etc.) in order to avoid the phonetic erosion that occurred in the nominative singular of nouns of the type *pars* (from **par-ti-s* in the nom. sg.).

The nominal suffix *-tus* (gen. *-ūs*) was motivated but no longer productive in the archaic period. It was thus no accident that masc. *-tus* (gen. *-ūs*) was totally grammaticalized into a verbal paradigmatic form such as the supine.

But *-tiō*, in contrast, remained a productive suffix for process nouns derived from a verbal stem. A *-tiō* noun was always a possibility from most verbal stems[194] (especially a stem in *-ā-*): *murmurā-re* 'to make a low, continuous sound, murmur' → *murmurā-tiō* 'the uttering of a low, continuous sound'. The lexical status of these nouns with a *-tiō* suffix was maintained from Archaic[195] all the way to Late Latin. However, many *-tiō* nouns also functioned as verbal nouns; that is, they conveyed the same lexical meaning as the verb they were associated with. They are therefore able to refer anaphorically to a verbal form appearing in the preceding context, as can be seen from (66). Here, *locā-tiō (-tiōn-is)* 'the giving out of a contract, subcontracting, the farming out of' at the beginning of the second sentence refers anaphorically to a form (*locāuerunt*) of the verb *locāre* 'award contracts for (work), subcontract, farm out (a job) on contract' appearing at the end of the first sentence.

194. Except for stative verbal stems ending with long *-e-*.

195. The rare passages in Plautus where a *-tiō* noun seems to govern an accusative in interrogative sentences with a special illocutionary force can be considered archaisms. The modality of such sentences is a protest against an action done by the addressee (Plaut. *Cas*. 406: *quid tibi istunc tactio est?* 'why do you dare touch him?'; Plaut. *Aul*. 423: *quid tibi nos tactio est, mendice homo?* 'but why are you touching us, you beggar?'; Plaut. *Amph*. 519: *quid tibi hanc curatio est rem, uerbero, aut muttitio?* 'what allows you, rascal, to put your nose into my business or to make the slightest utterance?'; cf. Plaut. *Asin*. 920, *Cas*. 408, *Curc*. 626). These occurrences are the remains of an earlier state when the *-tio* noun, just like any other verbal noun related to a transitive verb, may have had an accusative complement (Ernout & Thomas 1953: 22 §29). This is related to the formation of the infinitives in the Indo-European languages. Vedic shows how certain nouns denoting a process or state of affairs first took the required case according to the normal syntax of the sentence and later were grammaticalized into dative, locative, and accusative infinitives (Coleman 1985). This archaic structure, however, would probably not have been maintained as such if it had not received some help from a synchronic reanalysis. Synchronically, the word in the accusative is not governed by the noun in *-tiō* itself, but by the whole sequence *-tiō est*, which functions semantically as a single unit, a verbal complexeme containing a light verb (used here with the meaning of Fr. *verbe support*). For this synchronic reanalysis, cf. Fruyt (1995).

(66) Cic. *Verr.* II 4,79: *itaque tollendam istius imperio* ***locauerunt. Quae*** *uobis* ***locatio*** *ex publicis litteris Segestanorum priore actione recitata est*
'therefore, obeying his (Verres's) orders, they *subcontracted* the removal (of the statue). *This subcontract* was read out to you from the official documents of the Segestans during the first trial'

Hence, since the *-tiō* suffixed nouns functioned as verbal nouns, they did to some extent play a grammatical role, but they were still lexical items and they belonged to a productive nominal category. On the other hand, the *-tus (-tūs)* nouns were normally used as lexical items, in some cases with the role of a verbal noun (*aduentus*, *-ūs* 'the fact of arriving' associated with the verb *aduenīre* 'arrive'; *audītus*, *-ūs* 'the fact of hearing' associated with the verb *audīre* 'hear'), but they did not belong to a productive category. They were thus liable to lose their verbal noun status and in some cases they underwent the full process of grammaticalization and became part of the verbal paradigm.

6.4.2.3. A vanishing category. However, this *-tum* supine ceases to benefit from such lexical variety during and after the classical period. It is obviously a diminishing category after the archaic period and its distribution is limited more and more to lexicalized and rigid sequences.

The *-tū* supine as a prospective dative[196] was also a diminishing category. It was rare, since it was subject to heavy lexical and syntactic constraints that even increased over time. In the classical period, there are only a few lexicalized expressions such as *difficile dictū* 'difficult to say', *facile factū* 'easy to do', *mīrābile uīsū* 'extraordinary to behold' ('whose sight causes wonder'), *nefās dictū* 'forbidden to say' ('impious to say, sacrilegious to say'), *incrēdibile memorātū* 'incredible to say', *optimum factū est* + infinitive 'the best course is to'.[197] The lexical variety of the adjectives governing the *-tū*

196. Since, according to Gell. 4,16,5–9, a long *u* in the archaic and classical period was an allomorph for the usual dative ending in *-uī* (cf. Section 6.4.1 and nn. 183, 184), the supine here has preserved a minor morphological variant with a higher degree of rigidity than the productive declension.

197. Caes. *Gall.* 1,3,6: *perfacile dictu*; *Gall.* 4,30,2: *optimum factu esse duxerunt . . . frumento*

supine was greater in Plautus (*ridiculum*, *mīrum*, *miserum*, *formidulōsum*) and there was more lexical variety for the -*tū* supine itself (*gestū*, *inuentū*, *essū*).

This decreasing use over the development of Latin is not a grammaticalization. It is in fact the reverse phenomenon: the entry into the verbal paradigm of a new category.

But the formation of the Latin supine in a period preceding the first Latin texts represents a special kind of grammaticalization, since the arrival point has less syntactic autonomy than the departure point. The various forms of the supine may only occur in a very precise syntactic and semantic environment and they have a very restricted distribution.

But the entry of the supine into the verbal paradigm did not involve a "downgrading". Both the departure point and the arrival point in the transcategorization process were lexeme forms, one belonging to a nominal paradigm and the other to a verbal paradigm.

6.5. Grammaticalization in the formation of the future passive infinitive in *... tum īrī (datum īrī)*

In order to fulfill its verbal paradigm in the infinitive category – which is a comparatively "new" category in Latin and other ancient Indo-European languages – Latin created a verbal periphrasis for the passive future infinitive in *... tum īrī*[198] ((67)–(68)).

(67) Plaut. *Curc*. 490–491: *memento promisisse te ... mihi omne argentum* ***redditum iri***
'remember you promised that all the money would be given back to me'

(68) Caes. *civ.* 3,42,3: *Caesar longius bellum* ***ductum iri*** *existimans*
'Caesar, convinced that the war would last quite a long time'

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commeatuque nostros prohibere 'they thought the best thing to do was to impede our men from getting wheat and provisions'; Sall. *Iug.* 107,5: *optumum factu*; Sall. *Iug*. 40,3: *incredibile memoratu*; Cic. *Cato* 13: *nefas est dictu, miseram fuisse talem senectutem.*

198. Coleman (1985).

The *-tum* directive supine, which is itself (Section 6.4) a grammaticalized form, underwent a second grammaticalization process when it was integrated into a verbal periphrasis agglutinated with the form *īrī.* The *-tum* supine was then downgraded to a constituent in a lexeme form and was no longer a lexeme form. A passive form was created on the basis of this active form, *ī-re* with the passive ending *-rī* with an added long *-i* in *-tum īrī*. This passive form shows the grammaticalization of the infinitive of *īre* 'to go'. The verb *īre* 'go', being intransitive, does not have a personal passive voice when it is a 'full' verb – its only passive form is the impersonal passive *ītur* 'one goes' – so the fact that it displays a passive morphology here shows that it is no longer a "full" verb, but an auxiliary.

The origin of this passive verbal periphrasis is to be sought in an active periphrasis *īre -tum* that must have been used for the near and "normal" future, at first in ambiguous situations between the full verb 'go' ('I go and see') and the near future ('I am going to see, I will see').[199] A motion verb has been grammaticalized as a constituent in a future periphrasis, which is a well-known development in many languages.

But another explanation may be mentioned, one which is not incompatible with that one, but which on the contrary reinforces it. According to Kühner & Holzweissig (1912, I p. 690, §167.2.d), the explanation for the origin of *amātum īrī* and *datum īrī* is a reanalysis of an accusative object of the *-tum* supine into a patient-subject (i.e., a subject that denotes the patient) of the infinitive, due to the ambiguity of the accusative in an infinitive clause, since it can be a subject or an object; Kühner & Holzweissig, quote ex. (69). In the original syntagm, *īrī* would have been the infinitive of the impersonal passive *ītur* 'one goes'. It was completed by the directive supine *datum*, and *gladiātōrēs* was the direct object of *datum.* In the new verbal periphrasis, after the reanalysis, *gladiātōrēs* became the subject of *datum īrī*, which was by now functioning as a single lexeme form – and no longer as a syntagm.[200] This change was based on a reanalysis that led to morphologization.

199. The French future periphrasis *je vais venir te voir*, *je vais aller à Paris* has the same origin, where *aller* is a semi-auxiliary. It has developed from examples where *aller* 'go' was ambiguous, such as *je vais voir un ami* 'I am going to see a friend, I am on my way to visit a friend' and 'I will go and see a friend'.

200. Coleman (1985).

(69) Ter. *Hec*. 39–40: *rumor uenit /* ***datum iri*** *gladiatores*
'the rumor spread that there would be (given) gladiator (fights)'

6.6. Decrease of the verbal paradigm: The opposite of paradigmatization

6.6.1. Neutralization of the opposition active vs. passive in the present infinitive

In Late Latin there occurred a "confusion" between the active and passive present infinitives. This actually had a phonetic reason: the reduction of phonemic oppositions between vowels in final position, and a morphological reason: the deponent, with its passive morphology and active meaning, was troublesome in the morphological system as perceived by the speech community. It contributed to a decrease in perception of the opposition between active and passive in this infinitive category.

In Late Latin, while some authors (such as Gregory of Tours) still use the passive infinitive when it is needed (Greg. Tur. *Franc*. 5,3: ***nudari*** *eius tibias* ***faciebat***), others generalize the active infinitive in every case. In fact, in Late Latin – approximately since Cyprian – there is constant graphic variation in the manuscripts between active and passive forms when they have the same number of syllables. This is due to a general graphic variation between ⟨e⟩ and ⟨i⟩, ⟨o⟩ and ⟨u⟩, since these signs were no longer graphemes in the strict sense of the term – that is, linguistic graphic units displaying a biunique relationship with a phoneme in the strict sense of the term. They were thus no longer phonological units.

In Late Latin, the vocalic system had changed compared to Classical Latin and the new vocalic phonemes no longer had a non-ambiguous denotation. They were no longer convenient and biunique notations for the vocalic phonemes of the time.

The active and passive infinitives, when they had the same number of syllables, were pronounced approximately the same, such as *amāre* (originally with a short *e*) and *amārī* (originally with a long *i*). Therefore the scribe did not know what to write, so he wrote ⟨e⟩ or ⟨i⟩ only because he had been taught to do so at school. The same thing happened with *monēre* and *monērī*, *audīre* and *audīrī*.

After this first stage, which was due to phonetic neutralization, the problem became more serious when the grammatical concept of this voice opposition was lost. The confusion was then extended to infinitives that did not have the same number of syllables in the active and passive voice, such as *legere* and *legī*.

Thus the opposition between the active and passive forms of the infinitive was lost in the oral language and then in the written language, and the signifier only of what had previously been the active form was maintained, probably because it was the more frequent of the two. The consequence of this was neutralization of the voice opposition in the present infinitive. This is the opposite of paradigmatization. It is a linguistic change, but not a case of grammaticalization, since it involves the loss of a grammatical subdistinction within the verbal paradigm and not the acquisition of a new one.

We should not be surprised by such an evolution, given the origins of the Latin infinitive. In most of the Indo-European languages, the verbal paradigm goes through periods when its degree of precision increases with the creation of new nonfinite forms and, conversely, periods when the number of subcategories decreases, especially in the nonfinite categories since they are at the borderline of the verbal paradigm. After a period of maximum distinction for the verbo-nominal categories in preliterary Latin, Late Latin displays decreased complexity in the verbal paradigm. At the same time, below the surface, new categories were being developed in the language to replace the vanishing categories and continue filling the gaps in the verbal paradigm. We will illustrate this change that was going on under the surface by examples that involve neutralizations of the two participles (present active participle in *-nt-* and past passive participle in *-tus*) in Late Latin and, correspondingly, the emergence of a new participle: the past active participle, which was missing in Latin but exists in the Romance languages. The Latin examples are therefore the antecedents of a new paradigmatization.

6.6.2. Neutralization of the oppositions in Latin participles; The emergence of a past active participle

The infinitive is not the only nonfinite category that underwent a decrease in Late Latin. Some neutralizations also occurred in the participles.

6.6.2.1. Neutralization of the feature "passive" in the -tus, -a, -um *participle.* In Gregory of Tours, the participle in *-tus*, *-a*, *-um* (past passive participle, or perfect passive participle) functions partially as a past active participle, similar in function to Eng. *having sung* for the verb *sing* (and Fr. *ayant chanté* for the verb *chanter*).

The agent in an accusative or ablative absolute occurs inside the absolute construction, although it is in the nominative case and is the subject of the main verb ((70)–(71)). The deponent verbs, and especially the motion verbs, are probably partly responsible for this, since their past passive participle usually had an active meaning, such as *regressus* from *regredior* (Greg. Tur. *Franc*. 2,12: *a Thoringia regressus* 'after he came back from Thuringia') and *reuersus* (*reuertor*: Greg. Tur. *Franc*. 2,42: *reuersis nuntiis* 'after the return of the messengers'). This was troublesome for the distinction between the active and passive voices.

(70) Greg. Tur. *Franc*. 2,31: ***quem*** *sacerdos arcessitum secritius coepit ei insinuare ut . . .*
'the bishop, *having asked him* secretly to come and see him, started to . . . '

(71) Greg. Tur. *Franc*. 2,32: ***auditas*** *Godigisilus Chlodouechi regis* ***uicturias*** *misit ad eum legationem occulte*
'Godigisile, *having heard* of the victories of King Clovis, secretly sent him a delegation'

The second reason leading to the refunctionalization of the *-tus* participle is the frequency of a construction that was already frequent in the classical period: an ablative absolute where the agent of the past passive participle is not explicitly mentioned but is the same person as the subject of the main verb (72). This construction provided the opportunity for reinterpretation: it could have then been considered a past active participle in apposition to the subject of the main verb, especially at a time when most accusative and ablative inflectional endings were no longer differentiated in the spoken language.[201]

201. The same demonstration could apply to the accusative absolute.

(72) Greg. Tur. *Franc.* 2,37: *huius uero brachium beatus confessor cum oleo benedicto contrectans,* ***inposito signi crucis****, restituit sanum*
'but the blessed confessor, applying blessed oil on the arm, cured it *after having made the sign of the cross*' (lit. 'the sign of the cross having been made (by him), he ... ')

In these cases, the voice feature in the *-tus* participle is neutralized. Such examples could show the beginning of its function as a past active participle, before this new functional category was marked by a morphologically specific signifier.

In some cases, this *-tus* participle also lost its aspecto-temporal feature denoting the completion of the action and therefore anteriority of the action compared to the process denoted by the main verb. In Gregory of Tours, a *-tus* participle situated after the main verb may denote an event that occurred after the event denoted by the main verb, whereas it should[202] denote a process that happened before the process denoted by the main verb (73).

(73) Greg. Tur. *Franc.* 2,9: *cum quibus congressus Romanis adcomodus fuit,* ***multis*** *Francorum apud Carbonariam ferro* ***perimptis***
'with whom the Romans could easily start the battle, and *many* Franks *were killed* in the forest Carbonaria'

6.6.2.2. Neutralization of the aspecto-temporal properties of the present active participle. Another neutralization takes place in the present active participle in *-ns*. Its aspecto-temporal feature denoting progressive and durative action is lost. The neutralization applies here to the aspectual properties, and not to the voice properties as was the case for the *-tus* participle. But the underlying goal or target seems to be the same for these two different types of neutralization: the creation of a new category, the past active participle (74). The verbs occur in the chronological order of the events. If the present participle were used here in its classical function, the sentence would mean literally 'while Odoacer was going to Angers, king Childeric arrived the following day'. But there would be a contradiction in this interpretation, since

202. According to the classical use of this participle.

sequenti die aduenit refers anaphorically to a precise event which has already happened and not to an event which is happening.[203]

(74) Greg. Tur. *Franc.* 2,18: ***ueniente*** *uero* ***Adoacrio*** *Andecanus, Childericus rex sequenti die aduenit*
'after Odoacer had come into Angers, king Childeric arrived the following day';
'Odoacer came to Angers, and king Childeric arrived the following day'

6.7. Conclusion

We have documented several cases of grammaticalization that took place in the prehistory of Latin. More precisely, we should say that these were cases of paradigmatization. They consisted in the entry of two new verbo-nominal categories into the verbal paradigm: the infinitive and the supine, both being different realizations of the verbal noun function. Our conclusions here are mainly drawn from our observations of Archaic Latin.

At the other extremity, in Late Latin we have looked at some cases of deparadigmatization involving the loss of some morphological oppositions for the infinitives and participles.

And finally, we have established that this deparadigmatization phase coincided with the beginning of a new paradigmatization process. In Late Latin, it is only a process that was going on "under the surface", underlying the syntactic structure of the sentences, but it was to be morphologized in the Romance languages as a new participial category that was unknown in Latin.

These various phases are probably basic to many processes of linguistic change. We suggest that only cases of paradigmatization that involve the acquisition of a new category should be considered grammaticalization. This is not the case for deparadigmatization, where various events lead to the loss of categories.

203. Cf. Greg. Tur. *Franc.* 2,39: *denique* ***migrante Eustochio*** *Turonorum episcopo, … Licinius Turonicis episcopus ordinatur* '*after the death* of Eustochius, the bishop of Tours … Licinius is ordained in that function'.

Nevertheless, deparadigmatization itself seems to lead to new paradigmatizations, so that the loss of grammatical categories must also be taken into account in the study of grammaticalization.

7. Auxiliarization

In this section and the next ones (Sections 7.5.1 and 7.5.2), we focus on the emergence of a semi-auxiliary or auxiliary verb governing an infinitive in a verbal periphrasis.

We trace the Latin antecedents of some Romance verbal periphrases, analyzing them from a grammaticalization point of view, and we also discuss some other Latin verbal constructions that show similarities with other languages.

We deal here with the verbs *īre* ‘go’, *coepī* ‘begin, start’, *uolō* ‘want’, *faciō* ‘do, produce’, and finally *habeō* ‘have’. However, in this section we only look at the semantic weakening of *habeō*, since its most important developments for grammaticalization are studied in Sections 7.5.1 and 7.5.2, where we trace the Latin antecedents of the Romance present perfect (*habeō* + past passive participle in *-*to*-) and future (*habeō* + infinitive).

7.1. Grammaticalization of *īre* ‘go’

Verbs of motion are grammaticalized in many languages, and we have seen (Section 6.5) that, in the preliterary period, Latin created a periphrastic future passive infinitive *datum īrī* (*dare* ‘give’) involving *īrī*, a passive infinitive of *īre* ‘go’, and an accusative directional supine.

This was a case of full grammaticalization since the periphrasis was integrated into the verbal paradigm and since *īre* acquired passive morphology. This would not have been possible for the personal full lexical verb *īre*, since it was intransitive.[204]

204. For the origin of this passive infinitive, see Section 6.5.

This auxiliarization of *īre* 'go' is not random, since in many languages motion verbs may be grammaticalized in verbal semi-periphrases or periphrases, especially to denote prospective processes.[205]

In Archaic Latin the syntagm "*īre* + a prospective infinitive of purpose"[206] is well attested. This sequence must have been in use in spoken Latin all the way through the history of Latin, and its frequency increases in the Late Latin texts. It is probably the ancestor of the Romance periphrasis "motion verb + infinitive", where the verb 'go' is used as a semi-auxiliary for some specific kinds of future. For example, it is mainly (but not only) used as a near future in French (*je vais travailler* 'I am going to work, I am about to work', *je vais me mettre à travailler* 'I am going to start working').

7.2. Semantic weakening of the verb *coepī* (+ infin.)

The frequency of the verb *coepī* 'start, begin' (a perfecto-present, i.e., a present meaning with a perfect morphology) governing an infinitive increases in Late Latin texts.

In this construction, *coepī* has undergone semantic weakening, since it only introduces a new process and emphasizes the newness and the importance of this process in a narrative context. It no longer denotes the very beginning of a process as opposed to other moments of the process.

Petronius already uses this construction (Petron. 62,4: *homo meus coepit ad stelas facere*).[207] It must have belonged to the colloquial (and probably low-level) language, since its frequency is high in the *Itinerarium Egeriae*.[208] Its author even reinforced it with temporal adverbs such as *tunc* 'then', *statim*

205. Cf. Eng. *go and fetch (them at the station)* (British spoken English). For further examples of the grammaticalization of *go* and *come* see Bourdin (2007).

206. Fruyt (1996a, 1996b). The infinitive here alternates with the supine: Section 6.4.

207. Translated by Branham and Kinney (1996) as: 'my buddy *takes off* for some tombstones to do his business'.

208. Also in Augustine's *sermōnēs*, written at a lower linguistic level than his other works: Aug. *serm*. 231,5.

'immediately' ((75)–(78)). The translation as 'start' is possible for the two first examples, but not for the others.[209]

(75) *Itin. Eger*. 4,1: ***cepimus descendere*** *ab ipsa summitate*
'we *started the descent* from this summit'

(76) *Itin. Eger*. 3,1: *cum ipso presbytero* ***cepimus ascendere***
'then we *started the ascension* with this priest'

(77) *Itin. Eger*. 15,2: *tunc ergo gratias ei* ***agere coepi*** … *statim ergo* ***cepimus*** *ire cum eo*
'so then *I thanked* him … we then immediately *went* with him'

(78) *Itin. Eger*. 3,7: *cepi* eos *rogare ut ostenderent nobis singula loca*
'I *asked* them to show us each of these places'

(79) *Itin. Eger*. 16,3: *requirere cepi quae esset* …
'*I asked* what was …'

Finally, in the narrative texts of Gregory of Tours, the sequence *coepī* + infinitive is the normal expression when one wants to stress a new action (80).

(80) Greg. Tur. *Franc*. 6,11: *Dinaminius* … ***insidiari*** *Theodoro episcopo* ***coepit***
'Dinaminius *started to lay traps* for bishop Theodorus' / 'laid traps for'

By then *coepit* was no longer felt to be a full lexical verb meaning 'start, begin', since the governed infinitive can be *incipere*, a productive verb at the time itself meaning 'start, begin'. If *coepī* had kept its full lexical meaning, the literal translation of *incipere coepit* in (81) would be 'he started to start' or 'he began to begin'. The fact that a verb meaning 'begin, start' should have a tendency to become grammaticalized is not surprising in itself. In Archaic Latin, *coepī* had already shown its ability to become a semi-auxiliary since it took the passive voice when governing a passive infinitive in *urbs coepta est obsidērī* 'the town started to be besieged'.

209. A similar weakening happened in some occurrences of Fr. *commencer*: *alors il a commencé à me dire que j'avais tort*. Cf. *se mettre à,* which denotes a new action and stresses the importance of this new action: *alors il s'est mis à courir*.

(81) Greg. Tur. *Franc*. 8,31: *antefonas iuxta consuetudinem* ***incipere*** *per ordinem* ***coepit***
'as usual he *started* to sing antiphons one after another'

7.3. The modal verb *uolō* 'want'

The modal verbs meaning 'want' display a well-known tendency to become future auxiliaries where they govern an infinitive. This is the origin of *will* in the periphrastic English future: *they will come.* One of the futures in Romanian comes from a periphrasis with the Latin verb *uolō* 'want' + infinitive, while the other Romance languages have a periphrasis with Latin *habeō* 'have' (Section 7.5.2).[210]

Example (82) of *uolō* + infin. in direct speech in the first person singular shows the very beginning of this shift from volition to a near future. In Horace, the speaker (Horace himself) says to the addressee in order to get rid of him: 'I am going to visit someone that you don't know', but literally he says 'I want to visit someone'.[211]

(82) Hor. *sat*. 1,9,17–18: *quendam* ***uolo uisere*** *non tibi notum; / trans Tiberim longe cubat is prope Caesaris hortos*
'*I am going to visit* someone you don't know; he is ill lying in bed on the other bank of the Tiber, far away, near Caesar's gardens'
'*I am on my way to visit* someone …'[212]

210. This concept of volition was also expressed by other means than the verb 'want' itself. The desiderative Indo-European morpheme *-*s*- is used in the formation of the Ancient Greek future as a grammatical bound morpheme, while Latin uses it as a lexical bound morpheme in the verbal suffix -*essō* in the type *cap-essō* 'I want to take' as opposed to *capiō* 'take'.

211. The meaning of *uolō* here is weakened. It is not a strong volition verb, but a kind of near future or "progressive form". In addition, in this verse the second vowel has been shortened according to the law governing iambic words (*brevis brevians*). Since this law is mainly applied to grammatical and frequent words, *uolō* could have a slightly grammaticalized status in this context.

212. Eng. *I am going to see someone* is ambiguous. It could be a near future or a progressive form: 'I am on my way to see someone'. There is the same ambiguity in French (Section 7.1).

7.4. The evolution of *faciō*

Facio and the Latin "synchronic root" or "radical" *fac-* (and its allomorphs *-fic-, -fec-*) are the most productive causative morphemes in Latin. The inherited causative long *ē* of the *monēre* type was no longer productive in Latin.

7.4.1. Full morphologization in Sanskrit

The Indo-European causative morpheme **-éye- / *-éyo-* (with *o*-apophony in the root) was completely morphologized in some Indo-European languages.

In Sanskrit, it led to a specific verbal category within the verbal paradigm and constituted a third voice, the causative voice in *-aya-* generally with the full vocalic grade in the root: Skt. *kār-aya-ti* 'he makes x do ...' from the root *kr̥-* 'do, make'; *bodh-aya-ti* 'he teaches, he explains' from the root *budh-* 'be aware, be awake'.

This causative voice, with the addition of an actor (the causee), was the counterpart of the passive voice, which had a tendency to omit one actor (the agent). This is a case of grammaticalization in Sanskrit; more precisely, it is a paradigmatization, since the paradigm has acquired a new category.

7.4.2. Latin: a lexicalized element

This stage of total morphologization was never reached in Latin.[213] On the contrary, Latin excluded this inherited morphological type from the morphological area and limited it to a small area in the Latin lexicon where it was no longer productive. The long causative *-e-* was a lexicalized element in Latin that usually cooccurred with an *o* vowel in the synchronic Latin root. It is seen only in a small group of verbs and only in their infectum stems.

The verbs of causative origin with the highest frequency were *mon-ē-re* 'remind someone'; *torr-ē-re* 'heat so as to dry up, affect by burning' (usually for the sun that burns land); *mou-ē-re* 'impart motion to, move'; *fou-ē-re* 'heat, make warm'; *terr-ē-re* 'terrorize, terrify, fill with fear'; *doc-ē-re* 'teach'.

These verbs were probably no longer motivated for the speech community. Synchronically they may not have been a lexical group in the conscious-

213. Nor in the other Indo-European languages of ancient Italy.

ness of the speaker, since the causative morpheme *-ē-* was not productive in Latin and was not able to create new lexemes.[214]

So this is a case not of grammaticalization, but of lexicalization.

7.4.3. The causative morpheme fac- *and its allomorphs* -fic- / -fec-

Latin developed the *fac- / -fic- / -fec-* radical into a causative bound morpheme. This morpheme appeared in the second term of verbal and nominal compounds, such as *aedi-fic-ā-re* 'build', *auri-fex* 'goldsmith'.

The verb *faciō* itself was used as a causative morpheme in some constructions that were fully lexicalized and more or less grammaticalized. On the continuum of progressive grammaticalization, these constructions first developed from free verbal syntagms to complexemes (lexicalized verbal syntagms), then to more or less rigid verbal periphrases, and finally to verbal periphrases that underwent a phonetic reduction (for the first element) and became a single phonetic and accentual "word" with complete univerbation.

The best example of this phenomenon is the type *cale-faciō* 'warm up (something)', *are-faciō* 'dry (something), make (something) dry' (Fruyt 2001: in these verbs, the vowel *e* at the end of the first element is usually long but may also be short).

It results from the agglutination of two "words": a form of the lexical verb that is the ancestor of the infinitive (a kind of verbal noun), and *faciō*, which was fully grammaticalized here into a causative bound morpheme.[215]

This formation was productive within the limits imposed by the semantic and referential constraints of extralinguistic reality. These verbs remained in use from Archaic to Late Latin. They constitute a lexical group denoting physical processes that belong to the domain of the natural world, such as temperature: *cale-faciō* + accusative 'to warm something up', *ferue-faciō* +

214. This causative *-ē-* was probably limited in its productivity because of its homophony with the stative *-ē-* that stayed productive in Latin: *alb-ē-re* 'be white' (from *albus* 'white'), *rub-ē-re* 'be red' (on the Latin synchronic radical *rub-*, which also appears in *rub-er* 'red').

215. We must initially suppose an agglutinated sequence where the first element had another syllable after the long *e*. This syllable was the equivalent of the infinitive morpheme **-si* > *-se*. It disappeared in this position following the usual phonetic tendency in agglutinated sequences. Cf. *scī-licet* from *scīre-licet, scīre licet*: see Section 8.2.

accusative 'to bring something to the boil'. The subject of these verbs denotes the agent of the heating process. In this lexical group, *faciō* is so morphologized that it has its productive passive counterpart in *cale-fierī*, with the "patient" in the subject position ((83)–(84)).

(83) Plaut. *Epid.* 655: *abi intro ac iube huic aquam **calefieri***
'go inside the house and order some water *to be warmed up*'

(84) Cic. *Att.* 2,3,4: *balineum* ***calefieri*** *iubebo*
'I will order the bath to *be heated*'

The final elements °-*faciō* / °-*fīō* behave respectively as a causative and a passive bound morpheme, and they even show a tendency to become affixes. This group of lexemes is on the borderline between lexicon and grammar.

It was so productive that, by analogy with the lexemes already existing in Archaic Latin, the same structure was created again for a second time, and it was renewed again in an identical way in post-Classical technical Latin. The case of *inferuēre facitō* shows this cyclical renewal in a new periphrasis where *facere* governs an infinitive which retains its full, nonreduced signifier (85).[216] This sequence "infinitive + *faciō*" is a renewed variant of *inferue-facitō*, *ferue-faciās*, and so on.

(85) Colum. 12,38,5: *Mel inferuere facito*
'*warm up* the honey until it boils', 'bring the honey to the boil'

This *calefaciō* type and its renovation in an identical structure in *inferuēre faciō* are the earliest Latin representatives of the causative Romance periphrasis "do + infinitive" (Fr. *faire* + infinitive: *je* ***fais construire*** *un pont*, where *un pont* is the object of the infinitive *construire*).

But the Latin construction "*facere* + infinitive clause"[217] probably also played a role in the emergence of the Romance causative periphrasis (cf. Fr. *je* ***fais venir*** *mon frère*, where *mon frère* is the causee and also the agent of the verb *venir* in the infinitive).

216. Cf. Apic. 3,2,8: *feruere facias* as a renewal of *ferue-facias*; and *deferuere facies* as a renewal of *deferue-facies* in Chiron 49: *haec omnia mixta in uno rursum* ***deferuere facies*** 'having mixed all these (ingredients) together, you will bring them to the boil again'.

217. Robustelli (1993).

In the Romance languages, causative constructions with "do + infinitive" have already been grammaticalized but not totally morphologized.[218] Fr. *faire* functions as a semi-auxiliary or "function verb" but not yet as a full auxiliary, since the causative construction is not considered part of the verbal paradigm.

The causative construction *faciō* + infinitive is attested in Latin for the archaic period (Plautus, Ennius, Lucilius, Varro; Lucr. 3,301: *quae tremulum* ***faciunt*** *membris* ***exsistere*** *motum* 'which make its whole body tremble'). Its use with a causative meaning is widespread in Late Latin, especially in Christian authors (Tert. *adv. Marc.* 5,3; Cypr. *patient.* 4).

In addition to the preceding types, *facere* is used as a causative or factitive morpheme in some lexicalized constructions, such as *facere aliquid calidum* 'make something warm' (Cic. *Phil.* 6,18: *senatum ... firmiorem ... fecistis*), which are not limited by the semantico-referential constraints on the *calefaciō* type. These constructions are only lexicalized (and not morphologized).

Facere appears to be a light verb in many verbal complexemes. When governing a process noun as an accusative object, it may also express causativity: *fugam facere* 'make (the enemy) flee' (Liv. 1,56,4: *fugam hostium facere*) denotes the same process as *fugāre* + accusative: *fugare hostem* 'make the enemy flee'. This is also a case of lexicalization (and not morphologization).

7.4.4. Desemantization of facere*: A hyperonym*

Facere already functions in Archaic Latin as the hyperonym or archilexeme for all processes, even those that denote not an action but, for example, a psychological disposition. In (86), *facit* refers anaphorically to the stative predicate *miserum esse* 'be miserable'. Since *facere* was a hypernym for all processes, it had no lexical semantic feature apart from the notion of a process. This explains the fact that, in Late Latin, *facere* was used as a light verb in many referential situations.[219]

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218. For a three-pole scale of Romance causative structures (based on semantic and syntactic criteria): Simone and Cerbasi (2001).

219. *Facere* is even used as a euphemism for certain private actions and to avoid a precise lexeme: cf. the meaning of *cacāre* in Petron. 47,4; 66,2; obscene meaning in Catull. 110,2; 110,5.

(86) Hor. *sat.* 1,1,63–64: *iubeas miserum esse, libenter / quatenus id* ***facit*** 'let him be unhappy providing he *does* it willingly'

Facit became a light verb for impersonal complexemes denoting meteorological events.[220] These uses were maintained in the Romance languages: the ablative absolute *mane facto* (Greg. Tur. 2,13; 2,37) reminds us of Fr. *il fait matin* (cf. *il fait froid*, etc.).

Facere was used as a motion verb 'go' for direct speech in low-level language in Petronius (62,4: cf. Section 7.2) and in some Late Latin authors[221] (Tert. *pall.* 3,5: *ad illum ex Libya Hammon facit* 'from Libya Hammon *goes* and sees him').

7.5. Semantic weakening of *habeō* in Latin

In the first Latin texts, at the end of the third century BCE, the verb *habeō* had already undergone semantic weakening, since it means 'possess, have', while the Indo-European root means 'hold'.[222] The same kind of semantic evolution happened to Sp. *tener* 'have, possess', which came from Lat. *tenēre* 'hold', while the Spanish verb that came from Lat. *habeō* is no longer a lexical verb but an auxiliary limited to certain grammatical uses. This is a cyclic renewal with other linguistic elements, each period having its own productive lexemes and morphemes.

Lat. *habeō* shows broad plurifunctionality, which developed by extension of its possessive use. The frequency of *habeō* increased over the history of Latin as its functions became more numerous, which is an indication of its decreasing lexical and increasing grammatical status. *Habeō* tends to be used with the same variety of functions as its offspring in the Romance languages.

To express possession, the frequency of the *habeō librum* 'I have a book' type increased during the Latin period[223] at the expense of the other construc-

220. Cf. also the reflexive lexicalized *facit se* in Section 6.1.2.
221. The reflexive lexicalized form *sē facere* may also have the meaning of a motion verb (cf. Petr. 62,4; Apul. *met.* 5,2,1: *Psyche … propius accessit et … intra limen sese facit* 'Psyche came nearer and … crossed the threshold').
222. Benveniste (1966); García-Hernández (1993).
223. García-Hernández (1993); Baldi and Nuti (this work, vol. 3).

tion, *mihi est liber*, where the possessor is in the dative case.

Habeō is attested with an inanimate subject (cf. Fr. *avoir* and, in the Germanic languages, Eng. *have*) in (87).

(87) *Itin. Eger*. 2,1: *subter latus montis Dei, quae* **habet** *forsitan … in longo milia passos forsitan sedecim*
'at the foot of the mountain of God, which *has* perhaps sixteen thousand feet in length'

Habeō was often used in complex verb phrases as an underspecified verb[224] and it sometimes even ousted other light verbs. Its use extended at the expense of *facere* in *iter habeō*, which the *Itinerarium Egeriae* uses as a variant alongside the classical *iter facere* (88).

(88) *Itin. Eger*. 9,7: *et inde proficiscens denuo* ***faciens iter*** *per singulas mansiones Egypti per quas* **iter habueramus**, *perueni ad fines Palestinae*
'leaving from there, traveling back again by the same route and staying at the same inns in Egypt where we had stayed (on the outward journey), I reached the frontier of Palestine'

Habeō was used in Late Latin in a lexicalized expression denoting mere existence. Late Latin created a new impersonal lexeme situated at the beginning of a sentence or clause and deprived of a nominal subject: *habet* + accusative 'there is … '.[225] This verb displayed no agreement, singular or plural, with the following noun. But there still existed a small temporal variation. In (89), the imperfect *habēbat* is followed by a noun in the accusative plural, *mīlle quingentōs passūs*. This use of *habet* is a case of grammaticalization, since it shows morphological freezing, syntactic reduction of autonomy, and semantic weakening. *Habet* is here a new lexeme that has been detached[226]

224. We use this term here with the meaning of Fr. *verbe support*. Some linguists (e.g., Baldi and Nuti, this work, vol. 3) also use *light verb.* This seems to be the same notion as what Hofmann (1926) already called a *verbe passe-partout*, borrowing a French word into German technical terminology.

225. This is the ancestor of the lexically fixed French sequence *il y a*.

226. We could compare it – due allowance being made – to a meteorite detached from a planet. It then becomes a new entity on its own.

from the verb *habeō*.

(89) *Itin. Eger.* 23,1: *et quoniam inde ad sanctam Teclam . . . ,* ***habebat*** *de ciuitate forsitan mille quingentos passus, malui ergo perexire illuc* 'and since from there to saint Tecla *there was*, from the city, about one thousand and five hundred feet, therefore I preferred to go out there'

This semantic reduction of *habeō* is a good precedent for the understanding of its uses developed in Sections 7.5.1 and 7.5.2: *habeō* + past passive participle in *-*to*-, and *habeō* + infinitive.

7.5.1. Lat. habeō + *-to-

From the point of view of grammaticalization, the most specific feature of *habeo* is its role in the construction of two important Romance verbal periphrases: "*habeō* + the past passive participle in *-*to*-" and "*habeō* + infinitive" (discussed in Section 7.5.2). The Romance descendants of Lat. *habeo* are used as constituents in the fully grammaticalized verbal periphrases for the "present perfect" (Fr. *passé composé*: *j'ai vu* for *voir*, *j'ai pris* for *prendre*; It. *passato prossimo*) and for the future.[227]

These two constructions were not grammaticalized in Latin. However, Latin does show some enlightening antecedents of the grammaticalization process and it allows us to reconstitute the intermediate stages of a progressive tendency toward grammaticalization.

7.5.1.1. The criteria for full grammaticalization of habeo + *past passive participle in* *-to-. The first element leading to full grammaticalization of the periphrasis that led to the Romance present perfect, *habeo* with the past passive participle in *-*to*- of the lexical verb, is the fact that the entity expressed by the grammatical subject of the 'have' verb is also the agent of the process denoted by the participle: in Fr. *j'ai écrit une lettre* 'I have written a letter', the speaker (first person singular) is the grammatical subject of *have* (Fr. *ai*) and also the agent of the process 'write'.

227. With the exception of Romanian, which uses *uolō* 'want' as an auxiliary: Section 7.5.2.2.

The second element is that the whole sequence *j'ai écrit* 'I have written' denotes one single process and represents one single lexeme, the verb *écrire.*

This stage could be reached by a periphrasis with resultative sense that denotes the present consequences of a past event, similarly to a Greek perfect. This stage is well attested in Medieval and Modern Spanish.

However, in the Romance languages the highest degree of grammaticalization for this periphrasis was reached when it had acquired the temporal sense of an English preterite, a Greek aorist, a French *passé simple*, or an Italian *passato remoto*. At this stage the speaker simply indicates a past process with no reference to its present consequences. This stage has been reached in Modern French and Italian.[228] In contemporary French, the *passé composé* has ousted the *passé simple* in the spoken language and in many texts. *Nous sommes allés en vacances à Rome l'été dernier* is usual, whereas it would be unusual to write *nous allâmes en vacances à Rome*, and it would be quite out of place in spoken French.[229] From this point of view, French is more grammaticalized than Italian, which is itself more grammaticalized than Spanish: these three Romance languages often display a different rhythm in the way they grammaticalize a given structure (Lamiroy 1999). French was much earlier in reaching an aorist temporal sense for this periphrasis. In Spanish, the periphrasis *haber* + past participle is still used for the present consequences or present state of a past process denoted by the participle.[230] Thus the Spanish periphrasis is indeed grammaticalized, but, unlike French, it has not yet reached the last stage of grammaticalization.

228. But only in the language spoken in northern Italy, whereas the opposite is true in the southern dialects of Italy where the preterite is still the usual tense for the aoristic sense and for all past events.

229. Nevertheless, the *passé simple* has not been completely ousted: it is still possible in high-level speech to say *il fit une brillante conférence* 'he made a brilliant speech'.

230. But in the spoken language, Sp. *haber* + participle is starting to be used with an aoristic sense.

7.5.1.2. Development of the construction "'have' + past passive participle" in the Romance languages. The "'have' + past passive participle" construction is found in the Romance languages with (at least) three uses.

7.5.1.2.1. Stage 1: two verbs and a structure indicating possession. In the first use, the construction is not grammaticalized.

The 'have' verb denotes possession and the participle denotes another process, so that the whole sequence denotes two processes.

The entity which is the grammatical subject of the 'have' verb is not necessarily the agent of the process denoted by the participle: Fr. *j'ai quelque chose d'écrit* (lit. 'I have something written') is the equivalent of 'I own a written document'.

This is the continuation of a Latin construction already attested in Plautus: *habeō aliquid scriptum* 'I have something written, I own a written document' (see Section 7.5.1.3.1).

This stage is illustrated by the old Medieval Spanish (13th–14th c.)[231] "possessive" construction *aver* + an adjectivized past participle denoting an acquisition and the result of a previous action. This construction is not a grammaticalized verbal periphrasis. This sentence is a wish formulated by the bishop, who asks El Cid for the favor of striking the first blow. The agent of the process denoted by the participle is not explicitly mentioned. The agent of the process denoted by the past passive participle *otorgadas* is not the same person as the grammatical subject (*yo*) of the verb *aya.* Therefore, this is not an occurrence of periphrasis, since the verb *aver* 'have' still has a possessive lexical meaning. This is the continuation of the Latin construction already attested in Plautus.

(90) *Cantar de Mio Cid* 1709: *las feridas primeras que* ***las aya yo otorgadas***
'the first blows, (I ask you) that they shoud be granted to me'.

231. Delport (2004: 328).

In Modern Spanish, the same type of event is expressed by "*tener*[232] + adjectivized participle" (Delport 2004: 339), since ModSp. *haber* is only used as an auxiliary, having been completely grammaticalized.

7.5.1.2.2. Stage 2: one verb, one agent, and a stative and resultative meaning. The Romance languages also display a construction of "*have* + past passive participle" that more and more becomes a rigid periphrasis with a stative and resultative sense. It stresses the present consequences of a past action.

In the medieval stages of the Romance languages, the descendants of Latin *habeō* + **-to-* also survived with a resultative sense.[233]

This is clearly attested from Medieval to Modern Spanish, with some indication of progressive rigidification in Medieval Spanish.[234] Medieval Spanish has a grammaticalized periphrasis, where the agent of the participle is also the grammatical subject of the verb *aver* 'have': *aver* + a "true participle" (Delport 2004: 328). This periphrasis still has resultative (and not aorist) meaning. It denotes a past event which still has an impact on the present time (or on the moment of the time when the event is situated).

In examples (91)–(92) from Medieval Spanish, the resultative periphrasis is attested with verbs meaning 'leave' and 'win'.

(91) *Cantar de Mio Cid* 115: ***dexado ha*** *heredades e casas e palaçios*
'he left his properties, his houses, his palaces'

(92) *Cantar de Mio Cid* 1819: *desta lid que* ***ha arrancada*** *.cc. cavallos le enbiava enpresentaia*
'from this battle that he won, 200 horses he sent him as a gift' (= he won the fight and the fact that he is a winner still exists: he still is the winner)

232. From Lat. *tenēre* 'hold', following the same semantic weakening as is already postulated for Lat. *habeō* in preliterary Latin.

233. The Romance languages use two auxiliaries for the present perfect construction. For the distribution between 'have' and 'be', see Delport (2004).

234. The grammaticalization of the construction and the auxiliarization of *aver* in Medieval Spanish at the signifier level only occurred gradually. At the earlier stage, *aver* is postposed and there is agreement of the participle; some words could even separate the two elements of the periphrasis.

The periphrasis ModSp. “*haber* + past participle” is still linked to the present.[235] The resultative sense[236] still exists in the Spanish verbal periphrasis “*haber* + past passive participle”, which denotes a past event which still has some consequences at the present time.[237] It is still opposed to the preterite, which denotes a past event that has been completed in the past and has no further present consequences. In Spanish, the preterite is the more usual of the two constructions, the “*haber* + past passive participle” periphrasis being the specific and marked construction.

In that respect, Spanish is more conservative than French or Italian, since it does not display full grammaticalization into an aorist tense as is found in ModFr. *hier j’ai rencontré un ami* ‘yesterday, I met a friend’.

7.5.1.2.3. Third stage: aorist periphrasis. At different moments in each Romance language, but while the old resultative sense was still in use, a new temporal sense emerged, similar to that of a Greek aorist, an English preterite, or a French *passé simple*. This periphrasis denotes the past process alone without taking into account its present consequences.

This third use shows the shift from a resultative past to an aorist past. As has just been seen (Section 7.5.1.1), this is the final stage of the grammaticalization process.

This overview of the Romance evidence will help us now to classify the Latin occurrences. Since we are looking at these in the perspective of grammaticalization, it is useful to bear in mind that they eventually led to fully grammaticalized forms.

235. Therefore, it may be used with temporal adverbs referring to the present time: Sp. *hoy* ‘today’, *esta semana* ‘this week’.

236. In Old and Modern Spanish, the “*haber* + past passive participle” periphrasis may also denote an actualization of the event.The speaker may use it to emphasize a past event and bring it forward to present reality.

237. Examples from Delport (2004: 325).

*7.5.1.3. The uses and development of "*habeō + *past passive participle" in Latin.*

7.5.1.3.1. Possession: full verb *habeō* + accusative object + adjectival participle denoting a state. The combination of the past passive participle in *-tus*, *-a*, *-um* (IE **-to-*) in the accusative with forms of *habeō* is well established since Archaic Latin. It is not a verbal periphrasis. The full verb *habeo* with an idea of possession governs an accusative noun in the direct object position, and this accusative noun is determined by a **-to-* adjectival participle denoting a state. The participle in **-to-* has taken on an adjectival sense. It denotes a state established as the consequence of the completion of a previous process ((93)–(95)).

(93) Plaut. *Mil.* 48: *at* ***nullos***[238] ***habeo scriptos****: sic memini tamen*
'I don't have this list of soldiers in a written document' (lit. 'and yet *I have written* none (of them) down; nevertheless I remember (them) in this way')

(94) Plaut. *Rud.* 21: ***bonos*** *in aliis tabulis* ***exscriptos habet***
'he (Jupiter) is in possession of a full list of honest people written on other tablets' (lit. 'he *has inscribed* on other tablets the (full list of) names of the honest people')

(95) Cic. *Verr.* II 4,35–36: *ede mihi* ***scriptum*** *quid argenti in prouincia Sicilia pararis . . . 'nec* ***scriptum habeo****, nec possum edere'*
'show me in writing the silverware you bought (lit. 'show me *written* what silverware you have bought') in the province of Sicily; "I have no written (list), I can not produce (any register)"'.

The type of construction *habeō litterās scriptās* involves the assertion of two processes: (1) "I have a letter"; (2) "this letter is written". The agent of the "writing" process is not mentioned. The letter may well be written by somebody other than the possessor who is expressed by the subject of *habeo.*

238. Masc. pl. referring to *hominēs,* the soldiers killed by the *miles*, mentioned in verse 45.

7.5.1.3.2. Subject of *habeō* with coreferential agent of past passive participle. Some Latin examples show a slightly more grammaticalized construction, where the verb *habeō* does not have full possessive sense but still has a degree of semantic value and has not become an auxiliary. This construction is used for verbs belonging to semantic categories compatible with states and stative results, such as knowledge and cognition verbs or verbs meaning 'close'. This resultative sense existed throughout the history of Latin and is seen even in Late Latin. We mention here four specific semantico-referential situations employing this construction in Latin.

7.5.1.3.2.1 The past passive participle denotes the result of a previous action. The verb *habeō* still has lexical meaning, although it is weaker than full possessive meaning. It can be translate as 'hold' (96). The construction *diuisum exercitum habebat* is resultative. Otherwise the English word order would have been 'he had divided the army into'.

(96) Liv. 31,21,7: *dextra ala – in alas* ***diuisum socialem exercitum habebat*** *– in prima acie locata est*
'the right squadron – *he had the allied army divided* into squadrons – occupied the front line' (Sage 1936)

Another example from military vocabulary (97) is attested with verbs meaning 'assemble (troops)'. The sequence means that the troops are (were) assembled and they are (were) in the state of being assembled, and that the agent is in the subject position:

(97) Caes. *Gall.* 1,15,1: *idem facit Caesar equitatumque omnem ad numerum quattuor milium, quem ex omni prouincia et Haeduis atque eorum sociis* ***coactum habebat****, praemittit*
'Caesar does the same thing and sends all the cavalry, about 4000 men, that he *had assembled* (*kept assembled*) from the whole province and from the Haedui and their allies' (= 'that he had at his disposal because he had assembled them from ...')

7.5.1.3.2.2 Example (98) has an adjectival past passive participle denoting a state – more precisely, a psychological state.

(98) Ter. *Hec.* 294: *prius quam hanc uxorem duxi,* ***habebam*** *alibi* ***animum*** *amori* ***deditum***
'before I married this woman, my heart was dedicated to another love' (= 'my heart belonged to another', lit. 'I had my heart dedicated to...')

In (99), *placatos* is clearly an adjective (an adjectivized past participle) since it is coordinated with the adjective *fauentes* (an adjectivized present participle).

(99) Sen. *epist.* 110,1: *(deos,)* ***quos habet placatos et fauentes*** *quisquis sibi se propitiauit*
'whoever is propitious to himself has the gods kindly disposed and favorable to him'

7.5.1.3.2.3 The verb 'close' has the denotation of a state: 'be closed', 'be surrounded' ((100)–(102)). In (102), *clauseramus* denotes the process of closing itself and *clausum habebamus* the consequential state resulting from this process.

(100) Cic. *ac.* 1,11: *animo* ***haec inclusa habebam*** *et ne obsolescerent renouabam cum licebat legendo*
'I *had these things (enclosed) in my memory* and, in order that they should not vanish, I renewed them by reading, whenever I could'

(101) Liv. 22,4,5: *Poenus, ubi ...* ***clausum*** *lacu ac montibus et* ***circumfusum*** *suis copiis* ***habuit hostem****, signum omnibus dat simul inuadendi*
'when the Phoenicians *hold the enemy hemmed in* between the lake and the mountains and *surrounded* by their troops, they give a signal to attack all at the same time'

(102) Aug. *in psalm.* 33, serm. 1,9: *clauseramus ostia contra Christum et aperueramus diabolo; contra uitam aeternam* ***clausum cor habebamus***
'we had closed our door to Christ and opened it to the Devil; *our heart was closed* to eternal life'

7.5.1.3.2.4 This construction is found very early on with verbs of cognition (knowledge) and communication (*cognitum habeō* 'I know', *compertum habeō* 'I have ascertained'; *explōrātum*, *perspectum*, *persuāsum habeō*),[239] where it denotes the state resulting from a process that occurred in the past (103).

(103) Cic. *div. in Caec.* 11: *adsunt, queruntur Siculi uniuersi; ad meam fidem, quam* ***habent spectatam*** *iam et* ***cognitam****, confugiunt*
'all the Sicilians are here, they all lodge a complaint; they take refuge in my loyalty, which they *have* already *seen (experienced)* and which they *know* well'

The same construction is found in classical times with a knowledge verb from specialized military vocabulary: *explōrāre* 'to reconnoiter, inspect (a place)'. *Habeō explōrātum* in (104) means that Marcius (the speaker) knows for sure what he is speaking about since he got the information from spies he sent to watch Hasdrubal's camp:

(104) Liv. 25,38,16: *tertia uigilia noctis silenti agmine ducam uos.* ***Exploratum habeo*** *non uigiliarum ordinem, non stationes iustas esse*
'in the third watch of the night, I shall lead you in a silent column. *I am assured* that there is no relieving of sentries, no regular outposts' (lit. '*I have checked* ... ' = 'I am certain that') (Moore 1940)

With a verb meaning 'see, explore', the resultative meaning of the sequence is the equivalent of a 'know' verb: 'be sure, be certain'.

7.5.1.3.3. *habeō* + **-to-* in Late Latin: No clear occurrence of an aorist periphrasis. The final stage of this grammaticalization process (Section 7.5.1.1) is not attested in Latin.

According to several scholars, the grammaticalization process that morphologized the construction *habeō* + **-to-* into an aorist past tense had already happened in Latin and was already completed in Fredegar (7th c. CE).[240] But

239. Ernout & Thomas (1953: 223 §243).
240. Cf. the English edition of Fredegar (Wallace-Hadrill 1960: xxxvii); and the French edition (Meyers and Devillers 2003: 49).

the Latin texts are not really clear and unfortunately we do not have access to the spoken language.

As shown by Tara (in preparation §II.8.1), the passage usually cited (e.g., by Väänänen 1981: 131 §300; Ernout & Thomas 1953: 223 §243) as the first occurrence of the new temporal aorist sense, should not, in reality, be translated as 'you have invited the bishop'. The speaker is the intendant of the monastery and the addressee is the man in charge of the monastery. The context shows that the meaning is 'you have the bishop (here) as an invited (guest)'. This present resultative sense is confirmed by the presence of the deictic adverb *ecce* at the beginning of the sentence: 'Here we are', 'look here'. The intendant complains that there is no more wine while the guests have already arrived for the reception.

(105) Greg. Tur. *vit. patr.* 3,1: *igitur cum festiuitas supradictae basilicae aduenisset, praepositum uocat, ut uasa uino plena ad reficiendum populum qui solemnitati aderat, in atrio ex more componeret. Causatur monachus dicens: Ecce* ***episcopum*** *cum duce et ciuibus* ***inuitatum habes****, et uix nobis supersunt quatuor uini amphorae; unde omnia ista complebis?*
'therefore, when the feast day of this basilica arrived, he calls the intendant and asks him to set out in the reception hall, as usual, (some) pots full of wine to refresh the people who were taking part in the ceremony. The monk complains with these words: "Here, look: *you have*, *as your guest*, the bishop with the duke and the citizens and we have barely four amphoras of wine left; where are you going to fill all these from?"'

As shown by Tara (in preparation), these constructions in Latin texts may always be interpreted as denoting a state which is the consequence of an earlier process. The Late Latin examples that come closest to having an aorist sense are actually ambiguous, since they could be interpreted in two ways, as in (106), where the two *habeō* + **-to-* expressions may mean 'were living in sin, as a result of the fact that they had committed a sin', while the perfect *peccauit* denotes only the very moment when the sin was or was not committed. Furthermore, according to Tara (in preparation §II.2.2.5), this *habeō* construction is syntactically and morphologically ambiguous here, since it

could well be *habeō* as a light verb (this expression representing Fr. *verbe support*) and the noun *peccātum*, *-ī* neuter in the object position.

(106) Aug. *in euang. Ioh.* 44,3: *si ergo et parentes eius* ***habuerunt peccatum****, et iste* ***habuit peccatum****, quare dominus dixit: 'neque hic* ***peccauit****, neque parentes eius'?*
'therefore, if his parents *have committed a sin* and if he himself *has committed a sin*, why did the Lord say: "Neither he nor his parents *sinned*"?'

Another passage that appears to be ambiguous is (108): the French translation of *disponsatam* by the nouns 'une promise, une fiancée' is possible (Fr. 'Théodelinde, que Childebert avait eue comme promise (fiancée)'). An indication of the ambiguity of such passages is the fact that translators may have opposite opinions as in (109).[241]

(107) Greg. Tur. *vit. patr.* 6,3: *tunc etiam et Aprunculus Treuerorum episcopus transiit; congregatique clerici ciuitatis illius ad Theodoricum regem, sanctum Gallum petebant episcopum. Quibus ille ait: Abscedite, et alium requirite, Gallum enim diaconem alibi* ***habeo destinatum***[242]
'then Aprunculus, bishop of Treves also died; the clergymen of this city, who had assembled to see King Theodoric, asked him (to give them) Saint Gall as their bishop. He said to them: "Go and look for another man, since I *have designated* the *deacon* Gall for another function" '

(108) Fredeg. *chron.* 4,34: *Teudelendae … quem Childebertus* ***habuerat disponsatam***
'Theodelinde, whom Childebert *had had as his fiancée*'

241. Tara (in preparation §II.8.7).
242. Tara (in preparation §II.8.2).

(109) Greg. Tur., *Franc.* 7,22: *aurum argentumque uel alias meliores species, quas secum retenebat, in medio exposuit; quod uero* ***commendatum habuit****, publicatum est*

'on exposa en public l'or, l'argent et les autres objets les plus précieux qu'il gardait chez lui; ce qu'il *avait en dépôt* fut mis à l'encan' (Latouche 1996: 95)

(i.e., 'what he *had* as a *deposit* was put up for auction' with full possessive sense for *habeō* while *commendatum* denotes a state; the subject of *habeō* here is not the agent of the process denoted by the participle);

but 'on exposa en public l'or, l'argent et les effets les plus précieux; on confisqua ce qu'il *avait déposé* entre les mains de certaines gens' (Guizot 1861: 432–433)

(i.e., 'what he *had put* as a *deposit* in the hands of others was put up for auction'; in this interpretation, the person who is the subject of *habeō* is the agent of the participle: only a single process is indicated and the temporal sense here could be an aorist, but what he had deposited before, when he was alive, was also in the state of being deposited even after his death in this particular situation)

7.5.1.4. Conclusion. We may conclude that very few Latin passages – if any – show the *habeō* construction with a perfectly unambiguous aorist past tense sense. The construction indicates states or, more precisely, resultative states. It was not morphologized or fully grammaticalized in Latin.

The three Romance languages French, Italian, and Spanish show differences in the speed with which they grammaticalized the construction (cf. Section 7.5.1.1). Spanish developed it more slowly than Italian and French, and there are at the same time similarities and differences among the three languages. There is similarity since the direction of change is the same. But there is difference in the speed with which it occurred.

7.5.2. Habeō + *infinitive*

*7.5.2.1. The origin of the construction "*habeō + *infinitive".* The "*habeō* + infinitive" construction[243] that led to the Romance future tense is attested in Latin with a "prospective" sense inherited from the origin of the Latin infinitive.

It functions here syntactically and semantically as a dative infinitive with the prospective sense of the dative case, even though the active infinitive morpheme probably comes morphologically from a locative ending.[244] This prospective sense has survived in the Romance languages, where the Latin dative is often replaced by a preposition, such as Fr. *à* in the quasi-periphrasis "*j'ai à* (+ infin.)" (*j'ai des lettres à écrire*).[245]

7.5.2.2. The formation of the future tense in Romance languages. Romance languages have a future derived from the Latin periphrasis "infinitive + *habeō*" in the present tense, except Romanian which mainly grammaticalized the verb *uolō* 'want':[246] Lat. *cantāre habeō* > Fr. *(je) chanter-ai*, Sp. *cantar-(h)e* > *cantaré*, Port. *cantar-(h)ei* > *cantar-ei*, It. *cantare-(h)o* > *canterò.*[247]

In the same way, the so-called conditional tense or mood was formed from infinitive + *habēbam*, the imperfect of *habeō*, and it was originally, at least in French, a future in the past: Lat. *cantāre habēbam* > Fr. *chanter-(av)ais*

243. Cf. Section 7.5.1.

244. Fruyt (1992, 1996a, 1996b). It bears repeating that the Latin infinitive is a verbal noun frozen in the dative or locative case. The locative with a short **-i* gave the active infinitive in *-se* from **-s-i*, while the dative morpheme **-ei* gave the passive infinitive *-ī*.

245. The prospective infinitive is also attested in other branches of the Indo-European languages: Eng. *I have some letters to write*, *he has to go.* The preposition *to* (grammaticalized here in this infinitive form) is related to Ger. *zu*, from IE **do*, which is sometimes allative.

246. Rom. *voi cânta* '(I) will sing' < Lat. **uolio cantāre* < Lat. **uoleō cantāre*. The form *voi* has been grammaticalized here as a bound morpheme, while the productive form is *vreau* '(I) want'. Romanian also uses a 'have' auxiliary for the future: Rom. *am sa cânt* 'I will sing', where *am* is the productive form for 'I have'.

247. Teyssier (2004: 244–245).

> *(je) chanter-ais*; Sp. *cantar-(hab)ia* > *cantar-ia*, Port. *cantar-(hav)ia* > *cantar-ia*.[248]

Portuguese still shows the remains of this periphrastic origin in the infixation of the clitic personal pronouns in the infinitive mood: instead of **cantarei-**lhe*** *a minha canção* 'I will sing a song *for him*', a higher level of Portuguese[249] still uses *cantar-**lhe**-ei a minha canção*.

Thus the construction "infinitive + 'have'" has been fully grammaticalized and morphologized within the verbal paradigm in the Romance languages. But this was not yet the case in Latin.

*7.5.2.3. Sense of "*habeō *+ infinitive" in Latin.* The sense of the Latin construction "*habeō* + infinitive" is roughly similar to that of the English construction *I have to (do*) or *I have (things) to (do)*, for instance in *I have to go*, *I have a book to read*. A cyclic renewal of the Latin construction is the French semi-periphrasis *j'ai à* + infin. (discussed in Section 7.5.2.1).

We cannot assign a clear-cut sense to the Latin construction, since it is used in a variety of environments. Its development extends over a long period of time. Several attempts have been made[250] to describe the evolution of the construction in Late Latin from a modal to a temporal sense – and this would indeed mean full grammaticalization. But in Late Latin texts the construction has not yet been fully grammaticalized as a temporal periphrasis. Its sense still varies and it is polysemous. It can sometimes be interpreted as expressing a weak deontic modality similar to Fr. *je dois faire*, *il faut que je fasse*, or it can express a possibility,[251] or even a prospective view of the future.

*7.5.2.4. "*Habeō *+ infinitive" in the* Itinerarium Egeriae*: A minor construction for necessity.* The construction "*habeō* + infinitive" must have existed in the standard spoken language at the end of the fourth century CE, since it

248. But Italian used the *passato remoto* of the verb 'have': It. *cantare-ei* > *cantar-ei*, where *ei* is a grammaticalized form, while the productive form nowadays is *ebbi* 'I had'.
249. Today's spoken Portuguese has a tendency to eliminate this fossilized form and to replace it with a "regular" form: Teyssier (2004: 244–246).
250. An early attempt is Thielmann (1885, 1886).
251. For an analysis of a possible chronology of the various modal senses: Coleman (1971, 1976); Pinkster (1985, 1987b, 1988). For the order of the constituents: Adams (1991).

is in the *Itinerarium Egeriae*, where it can be translated by English *have* + infinitive. In (110), it seems to display a certain kind of deontic modal sense. But *habeō* + infinitive does not occur frequently in the *Itinerarium Egeriae.* It is a minor variant, while the most frequent modal expression is *necesse est. Necesse est* is used in contexts similar to those of *habeō* + infinitive for an obligation which is not under human control but is imposed by natural elements, as in (111). The *Itinerarium Egeriae* also uses *necesse est* + infinitive or infinitive clause as well as *dēbeō* + infinitive for other kinds of obligations that are linked to the author's wish and religious desire to visit every interesting site.[252] And indeed in (112), the deontic construction *necesse habeō* + infinitive is a combination of *habeō* + infinitive and *necesse est* + infinitive clause.[253] This indicates a degree of functional similarity in this particular context between the two constructions. It is attested in a jussive context for a religious obligation.

(110) *Itin. Eger.* 2,1: *ipsam ergo uallem nos* ***trauersare habebamus*** *ut possimus montem ingredi*
'and this very same valley, we *had to cross* (it) in order to be able to enter the mountain'

(111) *Itin. Eger.* 18,2–3: *perueni ad fluuium Eufraten … et ingens, et quasi terribilis est; … / itaque ergo quoniam* ***necesse erat*** *eum nauibus* ***transire****, et nauibus non nisi maioribus, ac sic immorata sum ibi forsitan plus media die*
'I arrived at the river Euphrates; it is immense and quite terrifying; therefore, since we *had to cross* it by boat, and only with big boats, I stayed there maybe more than half a day' (lit. 'since it was necessary to cross it by boat')[254]

252. *Itin. Eger*. 4,6: *propterea autem ad caput ipsius uallis* ***exire nos necesse erat*** *quoniam ibi erant monasteria plurima sanctorum hominum et ecclesia in eo loco ubi est rubus* 'moreover, the reason why we *had to go out* at the end of this valley was that there were very many monasteries of saints and a church in the place where the bush was'.

253. The deontic *dēbeō* (+ infinitive) is used in the *Itinerarium Egeriae* for a personal and moral obligation that someone imposes on himself: *Itin. Eger*. 46,1: *hoc autem, dominae sorores, …* ***scribere debui*** 'my sisters, I *have to write* you this'; cf. 45,1.

254. When the lack of water, another natural phenomenon, obliges the Persians to go back to their own country, the *Itinerarium Egeriae* uses the deontic construction *necesse est* +

(112) *Itin. Eger.* 36,5: *de hora enim sexta denuo* ***necesse habemus*** *hic omnes conuenire in isto loco, id est ante Crucem, ut lectionibus et orationibus usque ad noctem operam demus*
'since from the sixth hour, *we all have to gather* here again, in this place, that is to say in front of the Cross, in order to devote ourselves to readings and prayers until nightfall'

Not only is "*habeō* + infinitive" in the *Itinerarium Egeriae* not the dominant construction for necessity; it is also not attested for the future tense. The future tense still displays classical morphology (and occurs only a few times in the text).[255]

*7.5.2.5. "*Habeō *+ infinitive" in Christian authors: A prophetic future.* The clue to the development of the future in the Romance languages is the specific sense of *habeō* + infinitive in texts dealing with Christian theology.

7.5.2.5.1. Augustine: A theological comment on the future tense. Augustine establishes a relationship between "*habeō* + infinitive" and the notion of future[256] in his commentary on *John* 8,26. But this does not mean that he thinks that this construction has been grammaticalized into a future periphrasis. Example (113) is a theological remark and not a metalinguistic one. 'I shall judge' = 'I am destined to judge', 'I have to judge'.

(113) Aug. *in euang. Ioh.* 39,6: *sed aliud est: 'non iudico'; aliud: '****habeo iudicare****'. 'Non iudico', dixit ad praesens; … quod autem dicit: 'multa* ***habeo*** *de uobis* ***loqui*** *et* ***iudicare'****, iudicium futurum dicit*
'but there is a difference between: "I do not judge" and "*I shall judge*". He said: "I do not judge" in the present; but when he says: "I *have* lots of things *to* say and judge concerning you", he speaks of the future'

infin. clause: *Itin. Eger.* 19,12–13: ***necesse fuit eos*** *statim* ***reuerti*** *ad sua* 'they *had to go back* home immediately'.

255. Cf. *referam* and *nuntiābō* in *Itin. Eger.* 23,10.

256. Tara (in preparation §III.5).

These occurrences of the construction appear here in a prophetic passage (cf. also Aug. *serm.* 4,701, etc.), and this is the clue to its uses in Christian Latin.

7.5.2.5.2. The use of "*habeō* + infinitive" in Tertullian: A prophetic future in the past and in the passive voice. Tertullian's use of this construction displays the evolution that was taking place. Tertullian uses it to denote a prophetic[257] future[258] in his prophetic works, for example the *aduersus Marcionem* (book 3), where he tries to prove that the Old Testament had predicted the advent of Christ. Moreover, he often uses it with the imperfect of *habeo (habebat* + infinitive) and notably with a passive infinitive. The use of the passive infinitive is in itself an indication of a certain degree of grammaticalization. This is thus how Tertullian expresses a particular type of future in the past: a *prophetic* future in the past.[259] In the *aduersus Marcionem* book 5, *habēbat reuēlārī* means 'was due to be revealed' (114).

(114) Tert. *adv. Marc.* 5,18,4: *tamen et Creatori notum erat* ***futurum****. An non utique notum quod sub caelo et in terra eius* ***habebat reuelari****?*
'but yet to the Creator also *the future* was known. Did he not inevitably know that which beneath his heaven and his earth *was due to be revealed*?' (Evans 1972: 625)

The "future in the past" is expressed in English by "*was* + prospective infinitive" (see n. 257). The moment of speaking is later than the moment of the narrated events and the speaker knows what was to happen afterward. In the Christian authors, the events presented in the future-in-the-past could be events that had not yet occurred when the speaker writes, but the author is

257. This use of the word *prophetic* is not to be understood as Christian terminology, but as Kronning's (2001) linguistic terminology. It is an alethic future in the past, illustrated by sentences such as Eng. *Shakespeare, who was to die a few years later*; *who would die a few years later*; Fr. *Shakespeare, qui devait mourir quelques années plus tard*; It. ... *che doveva morire* ... Cf. Fruyt and Orlandini (2008: 232).
258. Tara (in preparation); Fruyt and Orlandini (2008).
259. Tara (in preparation III.3).

certain that they will occur, since he believes in Christian theology. Therefore this kind of prophetic future has a relationship with alethic modality.[260]

To express the prophetic-future-in-the-past in the active voice, Tertullian also uses the periphrasis "future participle in *-tūrus* + *erat*". In (115), the sequence *introducturus erat in terram promissionis* '(Christ) was to introduce it in the Promised Land' co-occurs with *prōuenīre habēbat* 'this was to arrive':

(115) Tert. *adv. Marc.* 3,16,4: *nam quia Iesus Christus secundum populum, quod sumus nos nati in saeculi desertis,* ***introducturus erat*** *in terram promissionis melle et lacte manantem, id est uitae aeternae possessionem, qua nihil dulcius, idque non per Moysen, id est non per legis disciplinam, sed per Iesum, per euangelii gratiam,* ***prouenire habebat****, circumcisis nobis petrina acie, id est Christi ⟨praeceptis⟩*
'Car le second peuple – celui que nous formons, nés que nous sommes dans les déserts du siècle –, Jésus-Christ *devait l'introduire* dans la terre promise, où ruissellent le lait et le miel, c'est-à-dire la possession de la vie éternelle dont rien ne surpasse la douceur, et tout cela *devait arriver*, non par Moïse, c'est-à-dire non par la discipline de la Loi, mais par Jésus, par la grâce de l'Evangile, après notre circoncision par le tranchant de la pierre, c'est-à-dire par les enseignements du Christ' (Braun 1994 : 147)
'For the second people – the one which we constitute, born as we are in the deserts of this world – Jesus Christ *was to introduce* it into the promised land, where milk and honey flow, which is into the possession of eternal life, than which nothing is sweeter, and this *was to be brought about* not by Moses, that is to say not by the discipline of the Law, but by Jesus, by the grace of the Gospel, after our circumcision by a knife of stone, that is by the precepts of Christ'

In the passive voice, Tertullian could also use a construction with *-ndus* (which in Late Latin plays the role of a passive prospective participle) and *erat*. But the type *reuēlārī habēbat* was more appropriate for events belonging to reality, since the *-ndus* adjective was often used for "unreal" events or events that almost happened but never actually happened.

260. See n. 257.

Tertullian probably used a construction here that was already in use in the standard spoken Latin of his time. He only used it for his specific Christian need: a prophetic future, mainly in the past and in the passive voice. It was probably filling a gap in the Latin verbal morphology.

7.5.2.5.3. Low frequency of "*habeō* + infinitive" in Latin texts. But "*habeō* + infinitive" is very infrequent in Latin texts. It is not at all usual for expressing the future tense, since the future is still expressed by the morphological, classical "synthetic" forms.

Although there are a few ambiguous occurrences, the full grammaticalization of "*habeō* + infinitive" is not completed in Latin texts until Gregory of Tours at the end of the sixth century and Fredegar[261] in the seventh century.

7.5.2.5.4. An analysis of Fredegar's *daras*. The well-known example usually cited as the first occurrence in Latin texts of the periphrasis "infinitive + *habeō*" with a temporal future sense and synthetic form is Fredeg. *Chron.* 85,27: *daras*, usually interpreted as 'you will give (it)' from **dare habēs* is already written synthetically in one "word", just like OFr. *prindrai* 'I will take' in the *Oaths of Strassburg* (Section 7.5.2.6.1).

But it is interpreted by Väänänen (1981: 132 n. 1) as a pun by allusion to the toponym *Daras* (though he mentions this interpretation only in a footnote and seems to reject it as unreliable).

This "*Daras*" is said by the Emperor Justinian to the king of Persia. Justinian, who had won the war, asked the defeated king to return the provinces he had taken, among which was a town called *Daras* in the north of Mesopotamia. The king of Persia refused to give them back and answered: "*Nōn dabō*". Justinian firmly replied: "*Daras*".

This occurrence of the full phonetic agglutination of "infinitive + *habeō*" is isolated and seems to be linked to certain specific circumstances. So, as Väänänen suggests, we cannot conclude that this is an indication of the ex-

261. Or rather Pseudo-Fredegar, since it is actually an anonymous chronicle. The text uses several constructions to refer to future events: the infinitive governed by *habeō, dēbeō*, and *uolō* (Devillers and Meyers 2001: 50). Thus there still existed variations in the utilization of these verbs that later were to become auxiliaries or semi-auxiliaries, so that the stage of full grammaticalization had not yet been reached.

istence of the fully grammaticalized construction on both the signified and signifier levels.

But we would nonetheless like to make a few remarks about the meaning and the pronunciation of this sequence.

The semantic value of *daras* here is not necessarily a temporal future sense. It could well be a deontic sense 'you must give (them), you have to give (them)', since the modality of the clause is jussive. This kind of obligation sense is usual in Late Latin. If this is indeed the case, then this occurrence is like the previous ones of "*habeō* + infinitive" or "infinitive + *habeō*" considered above, so there is no particular innovation here.

From a phonetic point of view, a construction may be a fully grammaticalized periphrasis even if it is written in two "words", like Eng. *will go*, *is gone*, *have understood*, Fr. *est parti*, *a compris*. Graphic univerbation is not a necessary condition for a construction to be a grammaticalized temporal periphrasis. But the fact that it is written in one and the same graphic unit is an indication that the sequence was heard and/or pronounced as a single unit – quickly, cohesively, without pause, and with only one word accent.

If Justinian said *dare habēs* 'you must give (them)' with a casual pronunciation, this could have been heard and understood by someone listening to the conversation as /daras/, a homonym of the toponym *Daras*.

Moreover, the pronunciation of *dare habēs* 'you must give' as the usual deontic construction written in two "words" could actually have been [daras] – or [darās] if the length of the vowel *a* (resulting from the contraction of short *a* and long *ē*) had still been preserved at that time, which is doubtful. The initial *h*- in Late Latin is a purely graphic device – as is shown by the fact that there is no trace of such a phoneme coming from Latin into the Romance languages. It had probably already been dropped by the archaic period, before Plautus, in the language of the city and surroundings of Rome (Leumann 1077: 173 §178.II–III).[262] The final -*e* in *dare* was elided before the initial vowel of the following word (pronounced [abes] – or [abēs] if the

262. Initial and internal ⟨h⟩ were only occasionally restored in pronunciation and only artificially in some idiolects (belonging to some socially higher class circles or schools of rhetoric): Catullus (*carm.* 84) shows that in his time (1st c. BCE) a nonliterate man, imitating literate people, incorrectly pronounces too many initial "h"s and aspirated voiceless consonants; cf. Quint. *inst.* 1,5,20; see Niedermann (1953: 86).

length of the vowel *e* was still preserved at that time, which is doubtful). Therefore the pronunciation must have been [darabes] in three syllables. In a further stage, spirantization of the internal -*b*- may also have occurred, since it is intervocalic. The bilabial voiced spirant is fragile in this position: it was weakened and dropped in French, Italian, and Spanish. Therefore, the pronunciation of our sequence could have been [daraes]. Then the two vowels [ae] could have contracted into [a], since in Latin the quality of the first vowel usually prevails in such cases (in Classical Latin this contraction would give long *ā*, but in Fredegar's time the phonological opposition between short and long vowels was lost). The final result is the pronunciation [daras] with only two syllables.

And this pronunciation could have resulted even if the construction was still functioning as the old deontic construction in two "words".

Therefore the graphic sequence ⟨daras⟩ could refer to the pronunciation of the old two-word construction as well as to the new one-word construction as it appears in the *Oaths of Strassburg* (Section 7.5.2.6.1). In rapid pronunciation, *dare habes* as a mere modal expression and *daras* as a temporal future periphrasis would be pronounced the same. The spelling ⟨dare habes⟩ reflects nothing more than the grammatical consciousness of the scribes, who had been taught this spelling.

7.5.2.6. Early occurrences in some Romance languages

7.5.2.6.1. The first occurrence of the Romance future: Old French. The construction studied here is fully grammaticalized in the oldest document written in a Romance language, Gallo-Romance, in the Old French document from 842 CE, the *Oaths of Strassburg*. Louis's oath is written in *lingua romana*, and two verbs in two main clauses are in the future: *salvarai* (> Fr. *(je) sauverai*) 'I will help' from Lat. *saluāre habeō*, and *prindrai* (> Fr. (*je) prendrai*) 'I will take' from Lat. *prēndere habeō* (116).[263]

263. In the same text, Louis expresses deontic modality ('since according to law one *must help* one's brother') with *salvar dift* from Lat. **saluāre dēbet.*

(116) *Oaths of Strassburg*: *pro deo amur et pro christian poblo et nostro commun salvament, d'ist di in avant, in quant Deus savir et podir me dunat, si* ***salvarai*** *eo cist meon fradre Karlo ...; et ab Ludher nul plaid nunquam* ***prindrai*** *qui meon vol cist mein fradre Karle in damno sit*
'for the love of God and for the common salvation of all Christians and of ourselves, from this day on, as far as God gives me knowledge and ability, I *shall help* my brother Charles here present; and I *shall make* no agreement with Lothar that, by my own will, could harm my brother Charles here present'[264]

Thus, in Northern France at that time, the periphrasis "infinitive + 'have'" was fully grammaticalized with temporal meaning, total agglutination, and complete merging of the two "words", the auxiliary being positioned after the infinitive so that the inflected morpheme would be at the end of the word. The auxiliary verb *habeō* was reduced to an inflectional morpheme, an affix. The two "words" were fully agglutinated in pronunciation and writing.

This text thus shows the highest degree of grammaticalization. It also shows that the scribes were conscious of the existence of this new grammatical category. This must have been completed during the approximately two hundred years between Fredegar (in Gaul, 7th CE) and the *Oaths of Strassburg* (mid 9th CE).

7.5.2.6.2. Early occurrences in Medieval Spanish. In Medieval Spanish (13th CE), this construction is also written as one single "word" with total agglutination and merging. The 'have' auxiliary was reduced to its final syllables in the plural: *lidiar (av)emos* > *lidiaremos*, *poder (av)edes* > *podredes*, *consentir (av)ien* > *consintrien*.[265] It was reduced to a monosyllabic inflectional ending in the singular (cf. Section 7.5.2.2): Sp. *cantar-(h)e* > *cantaré*.

264. Translation by P. Bec (1971: 39–40): 'pour l'amour de Dieu et pour le commun salut du peuple chrétien et le nôtre, à partir de ce jour, pour autant que Dieu me donne savoir et pouvoir, *je soutiendrai* ce mien frère Charles; et avec Lothaire je ne *prendrai* jamais aucun accord qui, par ma volonté, soit au détriment de ce mien frère Charles'.

265. Delport (2004: 255).

But in Medieval Spanish, the periphrasis may also still appear in two "words" separated by the enclitic *-lo* attached to the infinitive. Therefore, it must have still been motivated for the speech community as a periphrasis including two "words" (117).[266]

(117) G. de Berceo, *Milagros de Nuestra Señora* str. 625c–d: *avredes gran placer, /* ***preciarlo edes*** *más que mediano comer*[267]
'you will have great pleasure, you *will appreciate it* more than normal food'

7.5.2.7. Grammaticalization and the Latin future: From analytic to synthetic periphrasis in cyclic renewal. The history of Latin provides an impressive succession of future forms with oscillation between synthetic and analytic forms.

1. The ancestor of the *amābō* type is an analytic periphrasis: * *amā(X)* + **-b-ō*: a nominal form of the lexical verb *amāre* and an auxiliary in the subjunctive from the Indo-European zero-grade root **b^hwH-* "be, become".
2. This first sequence was reduced in Latin to a synthetic future: *amā-bō.*
3. The transitional period after Fredegar and before the *Oaths of Strassburg* hosts a cyclic renewal in Gallo-Romania with the creation of the analytic periphasis **amāre habeō.*
4. This analytic periphrasis was finally again reduced to a synthetic one: Fr. *(j')aimer-ai.*

This chain of cyclic renewals is a good illustration of Meillet's remarks on grammaticalization (Section 2.2). Rather than *cycle* 'cycle', Meillet used the word *spirale* 'spiral' for this renewal. According to what we have just seen, we might suggest the word *helix.*

266. In contrast, Modern Spanish shows a further stage of grammaticalization and stronger cohesion of the periphrastic sequence, since the clitic occurs after the whole sequence.
267. Delport (2004: 260, ex. 355).

8. Grammaticalization and modal verbs and adverbs

On the scale of grammaticalization, modal verbs occupy an intermediate position between lexical and grammatical lexemes. They play an important role in grammaticalization. They become part of an agglutinated sequence in a downgrading process and, indeed, their origin itself often involves a grammaticalization process, and sometimes more than one. The modal verb that shows the highest frequency in Latin is *possum* 'be able', which is used for both capacity and possibility.[268]

We first look at what happens after the initial creation (itself by grammaticalization) of modal verbs, since in Latin, several modal verbs have been further downgraded as constituents in the formation of other lexemes, and the grammaticalization process is particularly visible here. Concessive subordinators play an important role in this domain.[269]

Only then do we look at the formation of the modal verbs (and adverbs) themselves, and only in so far as they represent cases of grammaticalization.

Toward the end of this section (8.7, 8.10), we see that negation also plays an important role in the constitution of Latin modal lexemes (*necesse est*, *nequeō*).

8.1. *Licet* as a subordinator

The verb of permission *licet*[270] 'it is allowed to' was grammaticalized into a concessive conjunction 'although' when governing a subjunctive. It developed into the most frequent concessive subordinator in Late Latin prose and thus must have played an important role in the spoken language of late antiquity.

268. *Possum* occupies position 22 in the list of frequencies established by the LASLA (Section 1.4.1).
269. König (1988); Spevak (2001, 2002, 2003, 2007); Touratier (2006).
270. Maraldi and Orlandini (1997); Spevak (2001); Fruyt (2004). See Bertocchi and Maraldi (this vol., Section 2.7).

Its full grammaticalization as a subordinator is well documented only in post-Classical Latin,[271] but the starting point of this change in function (refunctionalizing) and in grammatical category (transcategorization) can already be seen in pre-Classical and Classical Latin. As is usual in linguistic change, the development of *licet* from a modal verb to a subordinator can be described as a slow continuum. The *ThLL* (1364–1365: *licet* 'vergit in notionem coniunctionis concessivae, aevo cadente fere i. q. *etsī*, *quamuīs*, *quamquam*') deals explicitly with the slow transformation process undergone by *licet* while it was becoming a concessive subordinator.

Licet is the characteristic morpheme of the first clause in a binary structure containing two clauses associated into a concessive diptych. In Cicero, *licet* must sometimes be translated with 'although', a true concessive subordinator in English, when "*licet* + subjunctive" appears at the beginning of a concessive sentence. The situation is similar here to a sentence comprising a concessive subordinate clause introduced by *licet* 'although' and a main clause.

8.1.1. Specifics of the grammaticalization process

However, this slow grammaticalization process is complex.

The linguistic units involved are characterized by several features and the grammaticalization process does not apply to all features at the same time. A grammaticalized element may still retain some traces of its original morphological variability.[272] *Licet* already appears as a concessive morpheme while at the same time still displaying some degree of freedom in its temporal variations. These are the remains of its previous function as a full modal verb: the future *licebit* is still documented (Hor. *sat.* 2,2,59) while the usual form for the concessive morpheme was already the present form *licet.*

Concessive clauses may have various syntactic statuses. They are usually integrated into a concessive diptych containing two clauses, and these may constitute two different sentences or may be two clauses within the same sen-

271. According to Purnelle (2001: 581), the first true evidence of *licet* as a subordinator is found in Apuleius, where *licet* is no longer placed after the verb in the subjunctive and it may be used with a verb in the indicative.

272. Cf. *quamuīs*, Section 8.4.

tence. In the latter case, two possibilities are documented: the two clauses may simply be juxtaposed or they may be organized in a hypotactic relationship, the first clause (the concessive one) being a subordinate clause.

Concessive clauses may also be used otherwise than in an explicit concessive diptych. As is shown by (118), a concessive clause may fulfill the syntactic role of a subordinate clause (here introduced by *quanquam*) or of a parenthetical sequence, an incidental clause (here: *atqui Messala dixit*). "*Licet* + subjunctive" here seems to be in an intermediate situation. In this passage, *licet* can no longer be interpreted as permission or possibility. The concessive sense of the whole sequence *licet Cato sit auctor* is clear and the specific morpheme that denotes this sense is the combination of "*licet* + subjunctive" with a specific intonation in the spoken language. From the moment when *licet* became a true subordinator, this specific and parenthetical intonation no longer existed. But unfortunately these intonational, suprasegmental morphemes are not marked in the texts and can be only partially recovered by inference from our experience of prosodic phenomena in contemporary Romance languages.

(118) Quint. *inst.* 1,6,42: *neque enim 'tuburchinabundum' et 'lurchinabundum' iam in nobis quisquam ferat,* ***licet Cato sit auctor****, nec 'hos lodices',* ***quanquam id Pollioni placet****, nec 'gladiola',* ***atqui Messala dixit****, nec 'parricidatum', quod in Caelio uix tolerabile uidetur, nec 'collos' mihi Caluus persuaserit*
'no one among us would accept the words "tuburchinabundus" and "lurchinabundus", *even if Cato guarantees their authenticity*, or "hi lodices", *even if Pollio approves of it*, or "gladiola" (*and yet Messala uses it*), or "parricidatus", which is hardly bearable in Caelius. And Calvus could not persuade me to accept "collos" '

8.1.2. The progressive development of licet

As we have seen, "*licet* + subjunctive" is already sometimes used in Classical Latin as a concessive lexeme attached to the first clause of a concessive diptych. These two clauses may be two sentences, separated by a full stop in modern editions. This status of "*licet* + subjunctive" or "subjunctive + *licet*" (with *licet* here at the end of the clause) is similar to (119)–(120).

(119) Fr. *Laissons faire. On verra plus tard*
'Let it be! We will see later'

(120) Fr. *Qu'il soit intelligent, soit. Mais il est malhonnête*
'He might be intelligent, all right. But he is dishonest'

The first term of the concessive diptych here is a concessive clause containing an imperative or a jussive subjunctive with a concessive unit (*So be it! / I'll give you that / okay*). The second clause starts with an adversative connector (*but / however / nevertheless*, etc.) or contains only a particular intonation.

In this stage of grammaticalization, the two elements of the diptych are generally considered to be two sentences, with a full stop between them, or perhaps a colon or dash showing the interdependence of the two clauses (*Let it be – we will see later*).

This stage is documented in Latin when, for example, *licet* is situated at the end of the first clause of a concessive diptych (121).

(121) Cic. *de orat*. 1,195: *fremant omnes* ***licet, dicam quod sentio***
'*let* the world grumble, I will speak my mind'

In this word order, *licet* is similar to Eng. *okay!*, or Lat. *estō!* with a concessive subjunctive. With this word order, *licet* cannot be a full subordinator.

In a further stage of grammaticalization, "*licet* + subjunctive" becomes similar to Fr. *Il a beau* ..., a lexeme characteristic of the initial position of the first term of a concessive diptych, which is always followed by a counterbalancing clause. The concessive diptych then usually consists of two clauses inside the same sentence. *Il a beau* is still capable of personal (*Tu as beau faire* ...) and temporal (*Il a beau / Il aura beau / Il avait beau* ...) variations ((122)–(123)).

(122) Fr. *J'avais beau chercher, je ne trouvais rien*
'Search as I might, I found nothing'

(123) Fr. *Vous avez beau parler, je ne bougerai pas*
'You may talk till you're blue in the face, I will not budge'

In some occurrences in the archaic and classical periods, "*licet* + subjunctive" seems to be the equivalent of a subordinator subject to heavy morphosyntactic constraints (e.g., governing only the subjunctive present or perfect),[273] especially when *tamen* is situated in initial position in the second clause. This is the case in (124), which follows the edition by Constans (1963: 49).[274]

(124) Cic. *Att.* 3,12,3: ***licet*** *tibi, ut scribis, significarim ut ad me uenires,* ***condono tamen*** *et intelligo te istic prodesse, hic ne uerbo quidem leuare me posse*
'*although*, as you write, I asked you to join me, *I nevertheless agree* and understand that you are useful there where you are, while here where I am you could not even help me with comforting words'

8.1.3. Methodological considerations

As can be seen from the previous classifications, the same concessive lexeme "*licet* + subjunctive" may be documented in various stages of grammaticalization in the same period and the same author. Frequency is an important indication here, since a structure is fully grammaticalized only when it is highly frequent. However, in previous periods there may be a few rare or isolated occurrences that are in fact forerunners of the later phenomena and that already display the same linguistic grammaticalized structure.

273. Cf. the well-known forerunner "*licet* + subjunctive plus-quam-perfectum" in a concessive diptych *licet …, tamen …*: *Bell. Hisp.* 16,3: *quod factum* ***licet*** *necopinantibus nostris* ***esset gestum, tamen*** *… oppido represserunt* 'although this event (the sally) had taken our men by surprise, nevertheless they drove (the enemy) back into the town' (*oppido* here being a purpose or directive dative); Touratier (1994: 690) also believes that *licet* in this passage is no longer a verb, since it is followed by the pluperfect subjunctive, which would be impossible with the full modal verb *licet* (which would normally need a present or perfect subjunctive). This sentence is usually considered the first occurrence of grammaticalized status for *licet* as a kind of subordinator. See Bertocchi and Maraldi (this vol., Section 2.7, ex. (154)).

274. Winstedt (1970: 219) has chosen a different reading for this passage: Cic. *Att.* 12,3,2: *licet tibi, ut scribis, significar*__*a*__*m ut ad me uenires,* ***dudum*** *tamen intellego te istic prodesse, hic ne uerbo quidem leuare me posse* '*though*, as you say, I did suggest that you should come to me, I see now that you are useful to me where you are, while here you could not find even a word of comfort to lighten my sorrows'.

8.1.4. Origin

The origin of "*licet* + subjunctive" as a concessive morpheme for the first term of a concessive diptych seems to be the old, premodal meaning of *licet* 'this (= a process, a state of affairs) is available', either in a context of possibility ('even if *p*, nevertheless *q*') or in a context of concession ('I agree that *p*, but nevertheless I assert *q*').

Licet mainly expresses permission in the classical period. But a passage from Cicero (125) shows that the speaker is aware of two semantic values for *licet*: in addition to the "normal" meaning 'it is permitted to someone (dative) to do something (infinitive)', he mentions a more general and premodal usual meaning used in the colloquial language of his time. The speaker thinks its use here is a vernacular mistake for 'what is granted (conceded, bestowed) to someone'. So in the common usage of the vernacular (*sermo*), *licet* would be the equivalent of *conceditur*, *concessum est*. A premodal sense (not yet an epistemic sense) is documented in (126), where *licet* is the concessive morpheme of the first term of a concessive diptych.

(125) Cic. *Tusc*. 5,55: *mihi contra non solum eo uidetur miser quod ea fecit, sed etiam quod ita se gessit, ut ea facere* ***ei liceret****. Etsi peccare* ***nemini licet****; sed sermonis errore labimur; id enim* ***licere*** *dicimus* ***quod cuique conceditur***
'on the contrary, in my opinion, he appears wretched not only because of what he did, but also because he so acted as to make his doing it allowable; and yet it is allowable for no one to do wrong; but we make a mistake (lit. an incorrectness of word) in ordinary conversation; we say *licēre* ('be allowed') for what is granted to someone (= what is possible, convenient for someone)'

(126) Cic. *Tusc*. 1,55: ***licet*** *concurrant omnes plebeii philosophi ..., non modo nihil umquam tam eleganter explicabunt, sed ne hoc quidem ipsum quam subtiliter conclusum sit intellegent*
'all the plebeian philosophers may stand in line (for a competition); not only will they never give such an elegant explanation, but they will not even understand how subtle the conclusion of this reasoning itself is'

Thus the semantic evolution could have been as follows. At first the personal verb *licet* in a sentence meant ‘an entity is on sale, this entity is available’. This verb was than used with an infinitive or an infinitive clause as its subject in a sentence meaning ‘a process (a state of affairs) is offered, set forward, available, open’ denoting an available opportunity.

This was the common starting point from which there derived the various semantic values involving epistemic modality (‘this state of affairs is possible, it is possible that’) and deontic modality or permission (‘this state of affairs is allowed to someone, it is allowed to someone to’).

8.2. The illocutionary adverbs *scīlicet*, *uidelicet*, *īlicet*

The modal verb *licet* was also grammaticalized as a constituent in the formation of three illocutionary adverbs: *scī-licet*, *uide-licet*, *ī-licet.*

These three illocutionary adverbs result from a grammaticalization chain starting with the free syntagms *scīre licet*, *uidēre licet*, *īre licet* governing an infinitive clause, and evolving toward the verbal complexemes *scīre licet*, *uidēre licet*, *īre licet*, which were then reduced to *scīlicet*, *uidelicet*, *īlicet* with the same construction (governing an infinitive clause), and which finally gave birth to the illocutionary adverbs with special prosodic features and pragmatic functions.

The illocutionary adverbs *scīlicet* and *uidelicet* were pronounced with various prosodic features: for example, with assertive intonation[275] (‘naturally, evidently’) in affirming an obvious fact or, conversely, with an ironic intonation[276] (‘doubtless, to be sure’) calling attention to the absurdity or counterfactual nature of a state of affairs.[277] The ironic intonation here is a morpheme reversing the meaning of the sequence compared to what it would mean if it were pronounced with an affirmative intonation.

275. *Scīlicet* for a strong assertion: Lucr. 1,439: ***scilicet** hoc id erit uacuum quod inane uocamus* ‘*of course* it will be this empty space that we will call void’.

276. Cic. *epist.* 3,7,4:*’scilicet contempsi te!’* ‘oh yes, of course I treated you with contempt’; the illocutionary sense of the sentence is ‘I did *not* treat you with contempt; on the contrary . . . ’.

277. *Scīlicet* + accusative and infinitive: Sall. *hist.* 1,77,5.

8.2.1. Scīlicet

*8.2.1.1. The full expression "*scīre licet *+ subordinate clause".* The full expression "*scīre licet* + subordinate clause" is well documented in several periods. In (127)–(128), this sequence seems already to have been lexicalized into a verbal complexeme containing the infinitive *scīre* 'know' plus *licet* '(lit.) it is possible to know', then 'it is obvious, certain that, I am sure that' (cf. also Lucr. 2,967; 3,873; Cels. 3,5,2).

(127) Lucr. 1,893–894: *quorum nil fieri quoniam manifesta docet res, / **scire licet** non esse … res ita mixtas*
'since the visible evidence shows that none of these happen, *it is clear that* the elements are not mixed up … in this way'

(128) Liv. 1,39,3: *uiden tu puerum hunc … quem tam humili cultu educamus? **Scire licet** hunc lumen quondam rebus nostris dubiis futurum*
'do you see this child whom we are bringing up in so humble a fashion? *Be assured* he will one day be a lamp to our dubious fortunes' (Foster 1919)

*8.2.1.2. The main verb "*scīlicet *+ subordinate clause".* But the reduced form *scīlicet*, in some occurrences, also functions as a main (impersonal) verb meaning 'one may be sure that', 'it is clear, evident that' (+ accusative and infinitive) or 'it is obvious (without accusative and infinitive, for example in answers) in Plautus, Terence, Lucretius, Varro, and Sallust. It is then the equivalent to *scīre licet* (infinitive *scīre* 'know' plus *licet*) mentioned above, literally 'it is possible to know'. The two forms *scīre licet* and *scīlicet* then function as allomorphs, as shown by the passages where they alternate (*scīre licet* in Lucr. 1,679, 860, 894 and *scīlicet* in Lucr. 1,377, 439; for the same phenomenon concerning *uidelicet*, see Section 8.2.2.2).

With an affirmative intonation, "*scīlicet* + accusative and infinitive" 'it is clear that' actually means 'it is absolutely certain that'. Although it is usually translated in English with an incidental adverb 'of course, naturally', in this use *scīlicet* is a main verb in Latin (129).

(129) Varro *rust.* 3,9,4: *qui spectat ut ornithoboscion perfectum habeat,* ***scilicet*** *genera ei tria paranda, maxime uillaticas gallinas*
‘*it is clear that* someone who wants to have a complete poultry-farm must procure the three species, and especially the barnyard hens’[278]

“*Scīlicet* + accusative and infinitive” expresses the personal conviction of the speaker in (130) with the meaning ‘I am absolutely sure that’: since the boat has sunk and the casket was inside the boat, the speaker infers that the casket has also sunk.

(130) Plaut. *Rud.* 395: *nunc eum*[279] *cum naui* ***scilicet*** *abiisse pessum in altum*
‘now *it is certain that* the casket has been lost with the boat in the depths (of the sea)’ (i.e., ‘*that* it went to its death in the boat’)

The first speaker in (131) expresses his conviction (‘I am sure that’) about something he believes is true but which does not belong to reality, and the addressee does not agree with him.

(131) Ter. *Haut.* 891–894: *ubi desponsam nuntiasti filio, / continuo iniecisse uerba tibi Dromontem* ***scilicet****: / sponsae uestem aurum atque ancillas opus esse, argentum ut dares. / :: Non. :: Quid, non?*
‘when you announced to your son that she was engaged to him, *I am sure that* Dromo immediately interposed in the conversation, saying that clothes, gold, servants were necessary for the fiancée, so that you give the money? :: No. :: What? no?’

Lucretius uses “*scīlicet* + accusative and infinitive” in a context where modal expressions are well documented. In these uses, *scīlicet* functions as a main modal verb of epistemic modality (132). With this affirmative meaning, “*scīlicet* + accusative and infinitive” is well documented in answers ((133); cf. also: Plaut. *Curc*. 263; Plaut. *Pseud*. 1179; Ter. *Haut*. 856).

278. See also the Loeb translation of Hooper and Ash (1934): ‘one who intends to have a complete poultry-farm should, *of course*, procure all three species, but chiefly the barnyard fowls’.
279. Text of the C.U.F. edition, Ernout (1962).

(132) Lucr. 2,468–470: n*ec tamen haec retineri hamata necessum: /* ***scilicet*** *esse globosa tamen, cum squalida constent, / prouolui simul ut possint et laedere sensus*
'nevertheless it is not necessary that these elements should be hooked to one another: *it is probable that* they are round, although they have a rough surface, so that they can at the same time roll and offend our senses'[280]

(133) Plaut. *Asin.* 784–787: *neque illa ulli homini nutet . . . / . . . / . . . / :: Optumest, ita* ***scilicet*** *facturam*
'she must not make a sign to any man :: Very well, *it is clear that* she will do as you say'

The fact that "*scīlicet* + accusative and infinitive" 'it is clear that, it is certain that, I am sure that', functioning like the syntagm *scīre licet* (containing an infinitive plus *licet*), is well documented in the pre-classical period (Plautus, Terence) and in the classical-period authors (Lucretius, Sallust)[281] who deliberately used an archaic style, shows that the illocutionary adverb *scīlicet* used as an incidental adverb is only a variation of this older use of *scīlicet* as a main modal verb.

Thus the adverb *scīlicet* probably came from the verbal complexeme *scīre licet*, as is suggested by the *Oxford Latin Dictionary* (s.v.) and by Ernout & Meillet (1967: s.v.).

8.2.1.3. Scīlicet *as an illocutionary adverb.* The use of *scīlicet* 'evidently' as an illocutionary adverb came from a pragmatic development, in an incidental clause, of the main verb in its reduced form *scī-licet.* But *scīlicet* acquired a degree of autonomy with regard to its position in the sentence, and it can display several roles simultaneously. Just like *licet*, *scīlicet* may also be used

280. Translation by Ernout (1966): 'il n'est pourtant pas nécessaire que ces derniers se tiennent accrochés ensemble; *sans doute* sont-ils quand même sphériques, tout en étant rugueux'.
281. Sall. *Iug.* 4,6.

as a morpheme for the first term of a concessive diptych (‘of course *p*, but *q*’). In (134), *scīlicet* is at the same time a way of answering Sostrata’s previous words and a way of beginning the first clause of a concessive diptych, whose second clause begins with *uērum*.

(134) Ter. *Haut.* 644–647: *mi Chreme, peccaui, fateor … /… / … / ::* ***Scilicet*** *equidem istuc factum ignoscam; uerum, Sostrata, / male docet te mea facilitas multa*
‘my dear Chremes, I did wrong, I confess it :: Of course, I will forgive what you did; but, Sostrata, my indulgence is a bad advisor for you in many things’

8.2.2. Videlicet

The illocutionary adverb *uidelicet* is also interpreted by the *Oxford Latin Dictionary* (s.v.) and Ernout & Meillet (1967: s.v.) as the reduction of a previous sequence *uidēre licet* with the univerbation of the infinitive *uidēre* ‘see’ and *licet* ‘(lit.) it is possible to see’ (with long or shortened *e*). The same kind of arguments and examples could also be given for the grammaticalization of *uidelicet* < *uidēre licet* as were given for *scīlicet* < *scīre licet*.

Vidēre licet may denote a true sequence of two verbs (a free syntagm), or only a graphic variant of *uide-licet*, while *uide-licet* may function as a mere illocutionary adverb or still have the syntactic construction (infinitive clause) and meaning of *uidēre licet*. In the same period, even in the same work of the same author, the full sequence with two verbs and the agglutinated sequence can both be found, written in one or two “words”. This is a variable situation where there may be no congruence between the various criteria: signifier (*uidēre licet / uide-licet*), syntax (*uidēre licet* + infinitive clause vs. *uide-licet* as a parenthetical or incidental sequence), and meaning (‘it is clear that’ vs. ‘of course’).

Three main stages in this grammaticalization process can be proposed.

8.2.2.1 The expression *uidēre licet* in (pre)-Classical Latin may sometimes have been a free syntagm, but it underwent lexicalization and became a complexeme. The sequence *uidēre licet* + the accusative governed by *uidēre* ‘see’ in (135) is probably still a “free” syntagm with two verbs, and it has

not yet been grammaticalized. But the high frequency of *uidēre licet* – with *licet* still subject to variations in tense – may explain its tendency to become just one single syntactic, semantic, and lexical unit. In this new sequence *licet* seems no longer to express permission, but rather possibility, in contexts where *possum* could occur, or it even expresses mere existence with very weak lexical meaning (136).

(135) Cic. *Tusc.* 2,12: ***Videre licet*** *alios tanta leuitate et iactatione, ut iis fuerit non didicisse melius, alios pecuniae auidos, . . .*
'*we can see* some of them acting with such frivolity and vanity that it would have been better for them not to have studied, others greedy for money . . . '

(136) Caes. *civ.* 3,27,1: *hic subitam rerum commutationem* ***uidere licuit***
'hereupon one *might* have seen a sudden change of fortune'; 'then *it was possible to* see a sudden change of fortune'

8.2.2.2 This complexeme *uidēre licet* was reduced to the form *uidelicet*, attested as a main modal verb (with accusative and infinitive) with the meaning 'it is plain to see, it is clear that' (Plautus, Lucretius, Cicero). The equivalence between the two forms and the fact that they function as mere allomorphs are shown by the occurrences where they alternate (e.g., *uidēre licet* in Lucr. 2,871; 5,899; 6,79, 781; but *uidēlicet* in Lucr. 1,210, 835) (for the same phenomenon concerning *scīlicet*, see Section 8.2.1.2).

At this stage, there has not yet been a syntactic or semantic shift between the complexeme *uidēre licet* and the one word *uidelicet*, since the syntactic role and the semantic value remained the same. *Videlicet* still functions as a main predicate governing a subordinate infinitive clause.

The change was only phonetic, as is shown by the signifier. The graphic sequence *uidelicet* was then written as a single word, with only four syllables (instead of the five of *uidēre licet*), and the word was also very probably pronounced with four syllables in a single phonetic unit with only one word accent.

As has been seen for *scīlicet* (Section 8.2.1), in some occurrences *uidelicet* is already written as one "word" but still governs an infinitive clause, a feature linked to its old function. It also still has the "old" meaning 'it is

clear that, it is certain that', 'one can see that, it is easy to see that' ((137)–(138)).[282]

(137) Plaut. *Stich.* 555: ***uidĕlicet*** *non parcum illum fuisse senem*
'*it is clear that* that old man was not parsimonious'

(138) Plaut. *Asin.* 598–600: *audin hunc opera ut largus est nocturna? nunc enim esse / negotiosum interdius* ***uidēlicet*** *Solonem, / leges ut conscribat*
'do you hear this man, how generous he is with his night work? Actually, *it is clear that* (this new) Solon is very busy during the day writing laws'

8.2.2.3 Finally, this reduced form uidelicet*, in incidental clauses, evolved toward a pragmatic item 'evidently, plainly' (with an affirmative sense), or 'of course, no doubt' (with an ironic and disbelieving intonation), or 'that is to say, namely, that is' as an explanatory particle.* *Videlicet* (just like *scīlicet*: see Section 8.2.1) can be used parenthetically, and this use was probably the intermediate stage for the transition toward an illocutionary adverb. When *uidelicet* was used with an ironic intonation in a parenthetical sequence, it was already an illocutionary adverb.

8.2.3. Ilicet

Ilicet has a much lower frequency that *scīlicet* and *uidelicet*.

8.2.3.1. Two verbs in a free syntagm. A "free", non-grammaticalized syntagm is documented, for example in Plautus (139), with the lexical verb *īre* 'go' and a spatial adverb *intrō* 'inside' separated from *licet*.[283] This example shows the premodal sense of *licet* (capacity) mentioned in Section 8.1.4 in the context of the evolution of *licet* towards a concessive subordinator.

282. With an infinitive clause: Plaut. *Stich.* 557 (*uidĕlicet*); *Rud.* 395 (*scīlicet*); Lucr. 2,469 (*scīlicet*); Varro *rust.* 3,9,4 (*scīlicet*); Sall. *Iug.* 4,6 (*scīlicet*); Cic. *Att.* 5,11,7 (*uidelicet*).
283. For the same kind of example with two full verbs in a free syntagm, cf. Plaut. *Capt.* 451: *ire huic ut liceat domum* 'so that he will be allowed to go home'.

(139) Plaut. *Most.* 851–852: *nil pericli est; age / tam placidast quam feta quaeuis;* ***ire*** *intro audacter* ***licet***
'there is no danger; come on! It is as peaceful as any pregnant animal; *it is possible to* (= *you can*) *go* inside the house without fear'

8.2.3.2. Ilicet *as a main verb governing a subordinate clause.* But *īlicet* with three syllables as the reduction of *īre licet* is used as an exclamation of dismissal 'you may go, off with you' in Plautus and Terence; and it is the syntactic and semantic equivalent of *īre licet* as a main verb governing an infinitive subordinate clause in the lexicalized expression *īre malam crucem* 'go and perish, go and be hanged, go to one's death' (140).

(140) Plaut. *Capt.* 469: ***ilicet*** *parasiticae arti maxumam malam crucem*
'damn the job of a parasite!'; 'may the job of a parasite perish!'
'la peste soit du métier de parasite!' (Ernout 1933)

8.2.3.3. Ilicet *as a complete utterance by itself.* For *ī-licet*, the grammaticalization process went so far as to freeze the expression into a word used as a full sentence displaying the role of a complete utterance: 'that's it, it's all over'. *Ilicet* is then used as an exclamation of dismay: 'that's the end, it's all over' (141) or in a desperate situation leading to death (142).[284]

(141) Ter. *Eun.* 345–348: *huc cum aduenio, nulla erat. / :: Comites secuti scilicet sunt uirginem? / :: Verum: parasitus cum ancilla. / :: Ipsast:* ***ilicet!*** *Desine: iam conclamatumst*
'when I arrived here, there was nobody. :: Some people, surely, were accompanying the girl? :: Yes: a parasite with a female servant. :: that's her: *that's it*. Let it go: it is all finished now'

(142) Verg. *Aen.* 2,422–426: *clipeos mentitaque tela / agnoscunt atque ora sono discordia signant. /* ***Ilicet*** *obruimur numero, primusque Coroebus / Penelei dextra diuae armipotentis ad aram / procumbit*
'they recognize our shields and our disguised arms; and they notice the foreign accent of our voices. *That's it*, we are overcome by the

284. Plaut. *Amph.* 338: ***ilicet****: mandata eri perierunt una et Sosia*; *Cist.* 685: *quid hic? perii, opinor. Actum est,* ***ilicet****.*

number (of warriors); the first one, Coroebus is killed by Peneleus and falls near the altar of the almighty goddess'

8.2.4. *Origin of* scī-, uide-, ī-licet

8.2.4.1. An infinitive origin. The various stages of grammaticalization just proposed would imply that the origin of *scīlicet*, *uidelicet*, and *īlicet* functioning as main verbs or illocutionary adverbs is as a lexicalized sequence resulting from the fusion of an infinitive (*scīre* 'know', *uidēre* 'see', *īre* 'go') with *licet*. Therefore, according to the interpretation suggested above, among the various types of agglutination displayed by Latin[285] this would be the incorporation of an infinitive into a modal verb which undergoes a kind of auxiliarization with partial loss of semantic features.

In such a grammaticalized sequence, the order of the constituents is motivated, with the inflected word appearing in final position, in line with the general tendency in Latin.

8.2.4.2. An imperative origin? But another hypothesis should also be mentioned for the origin of the first elements *scī-*, *uide-*, and *ī-*.

There is general agreement that they are the result of the lexicalization of a sequence containing a form of the verbs *sciō* 'know', *uideō* 'see', and *eō* 'go' agglutinated with the impersonal modal verb *licet* in its possibility meaning 'it is possible to (know, see)' or its permission meaning 'you are allowed to go'. But instead of an infinitive origin, an imperative origin has sometimes been also proposed.

While the *Oxford Latin Dictionary* is in favor of the infinitive for the origin of *scīlicet* and *uidelicet*, it hesitates for the origin of *īlicet* between the infinive (*īre licet*) and the imperative second person singular **ī licet*. Ernout & Meillet (1967) propose the infinitive explanation, *īlicet* < *īre licet*, and argue that in two examples from Plautus, *Capt.* 90 and *Pseud.* 1182, *īlicet* functions as a main verb governing an accusative and an infinitive (cf. the similar 8.2.3.2 above).[286]

285. Fruyt (1990).

286. The sequence *īre licet* is also the explanation given by Donatius in his commentary on Ter. *Phorm*. 208: *īlicet!* 'it's all over!'

Leumann (1977: 566 §418.II.C) suggests that the three lexical items discussed here might come from an imperative second person singular: *ī-licet* < **ī licet*, *scī-licet* < **scī licet*, *uide-licet* < **uide licet*. Nevertheless, they also propose that *scīlicet* and *uidelicet* could have been created by analogy with *ī-licet*, and that *īlicet* would therefore be the initial pattern for the formation of the two other lexemes. However, further on they somewhat surprisingly admit that *īlicet* does not derive from the imperative *ī* 'go!', but from the infinitive *īre*. They justify this by the fact that *ī-licet* and *uidelicet* function as main verbs equivalent to "infinitive + *licet*" in Plaut. *Capt*. 469 and *Asin*. 599.

8.2.4.3. Conclusion. Since the various stages of grammaticalization from a sequence involving an infinitive are well documented in archaic texts, this author favors the infinitive origin for our three lexical items. This would involve developments that can be summed up as follows.

– "*scīre licet* + accusative and infinitive" 'it is possible to know, one can know', thus 'one may be sure that, it is clear or evident that, I am sure that', gives phonetically "*scīlicet* + accusative and infinitive" 'one may be sure that, it is clear or evident that, I am sure that', which finally evolves semantically and pragmatically into *scīlicet* 'of course, evidently';
– "*uidēre licet* + accusative and infinitive" 'it is permitted to see that, one can see that, it is clear that, obvious that'[287] gives phonetically "*uidelicet* + accusative and infinitive" 'it is obvious that', which finally evolves semantically and pragmatically into *uidelicet* 'of course, evidently';
– "*īre licet* + accusative and infinitive" 'may go' (second or third person) gives phonetically "*īlicet* + accusative and infinitive" 'may go' (second or third person), which evolves semantically into *īlicet* 'that's the end, it's all up, it's over' as a clause and utterance by itself.

This is not to say that, synchronically, the three items may not have benefited from a double analysis, with a first element that was perceived either as an infinitive or as an imperative.

287. For shortening as a consequence of agglutination and the phonetic processes operating on the final syllable of the first element of the agglutinated sequence, see Fruyt (1990, 2001). In *uide-licet* there occurred sometimes a shortening of the first *e* of *uidēre*.

8.3. The formation of indefinite pronouns, adjectives, and adverbs

A modal verb can also be used in an agglutinated sequence to form indefinite pronouns-adjectives. In Lat. *quī-uīs*, literally 'whom you want', the second person singular of *uolō* 'want' (used for 'anyone') has been grammaticalized as a constituent.[288] The same situation occurred for another modal verb, *libet*, in *quī-libet*, literally 'whom you like', 'anyone', 'whomever you please'. The adjectives and pronouns *quī-uīs* and *quī-libet* function as "free choice" quantifiers, but also as "universal" quantifiers. They result from the agglutination of a subordinate clause containing a subordinator and a modal verb of volition.[289]

(143) Lucr. 1,414–417: *ut uerear ne tarda prius per membra senectus / serpat … / quam tibi de* ***quauis*** *una re uersibus omnis / argumentorum sit copia missa per auris*
'I fear that heavy old age will creep through my limbs before all the great wealth of my arguments about even one single matter, *whatever it may be*, could reach your ears through my verses'

These two modal verbs, *uolō* and *libet*, are also used in the formation of adverbs following the same pattern. They are quantifiers denoting real intensity; the sequence *quam uīs* 'as much as you want, as much as possible' becomes the adverb *quam-uīs* 'extremely', then the concessive subordinator *quam-uīs* (+ adj. or adv.), and finally, in Late Latin, a standard concessive subordinator 'although'.

A variation of these formations is documented with *quantum* rather than *quam* in *quantum uīs* 'as much as you want' > *quantum-uīs*, *quantum libet* > *quantum-libet.*

Another model for the formation of indefinite pronouns is attested in *nescio quis* 'whoever' (with shortening of final *ō* of the verb *nesciō*, since the word *nescio* in *nescio quis* is grammaticalized and reduced to the status of a bound morpheme), *nescio unde* 'wherever (you come from)', *nescio*

288. For indefinte pronouns, see Bertocchi, Maraldi, and Orlandini (this work, vol. 3), where Haspelmath's classification of Latin indefinite pronouns is analyzed according to the typological method (Haspelmath 1996).
289. The formation is the same as for *quam-uīs*, Section 8.4.

quōmodo, etc. with grammaticalization of the verb *ne-sciō* 'I do not know' in a lexicalized sequence where it is followed by an indirect interrogative pronoun.

Modal verbs may also become relators or coordinating conjunctions: *uel* 'or' originates from the second person singular of *uolō*, probably in the present indicative '(if) you want' (or, according to another school of thought, from the imperative). They may also be involved in the frozen formula *sī uīs* 'if you want', therefore *sī-uīs* > *sīs* 'please'.

8.4. The formation of concessive subordinators

Concessive subordinators are a fertile ground for grammaticalization processes.[290]

We have already seen the case of *licet*, the grammaticalization of a verbal form into a subordinator. But there are also several interesting examples concerning scalar concessive subordinators. As seen in Section 8.3, *quam-uīs*[291] is the result of the agglutination of a subordinate clause containing two elements: a subordinator, the adverb *quam*, and a form of *uolō* 'want' in the second person singular (used here as a universal quantifier: 'anyone'), with the literal meaning 'as much as you want'.

The whole sequence was first used as an intensive indefinite adverb intensifying a scalar (gradual) adjective or adverb (cf. Plaut. *Men*. 318: ***quamuis ridiculus*** *est ubi uxor non adest* 'he is *very* witty when his wife is not there'). The lexeme *quam-uīs* still displays some morphological personal and tense variation and it is not completely frozen (second person plural: *facinus quam uultis improbum* Cic. *Verr.* II 5,11 'very unfair'; third person plural: *quam uolent … diserti sint* Cic. *Cael.* 67 'very eloquent').

When *quam-uīs* became a subordinator (a case of grammaticalization), it was at first a scalar concessive subordinator[292] governing the subjunctive and intensifying an adjective or an adverb ((144)–(145)). But *quam-uīs* then

290. König (1988).
291. See Bertocchi and Maraldi (this vol., Section 2.4.1). Cf. Bertocchi (2002); Leutschner (2008).
292. Bertocchi (2002).

underwent semantic weakening (which is also a kind of grammaticalization) when it was used as a standard and nonscalar concessive subordinator, translated with ‘although’. In this it followed the same semantic evolution undergone earlier by *quamquam*.

(144) Plaut. *Trin*. 554: ***quamuis*** *malam rem quaeras, illic reperias*
‘*whatever* bad business you are looking for, you will[293] find it over there’

(145) Cic. *epist*. 7,32,3: *ualde mihi tuae litterae facetae elegantesque uisae sunt. Illa* ***quamuis*** *ridicula essent, sicut erant, mihi tamen risum non mouerunt*
‘I found your letter very witty and elegant. But *however* funny it was, and it was funny, nevertheless it did not make me laugh’

Quamuīs in (146) and (147) could be considered as showing an intermediate situation between scalar and nonscalar use.

(146) Cic. *Verr*. II 5,168: *hoc iuris in omnes constitueres ut qui neque tibi notus esset neque cognitorem locupletem daret,* ***quamuis*** *ciuis Romanus esset, in crucem tolleretur*
‘you established this legal precedent against everybody that anyone whom you did not know or who could not give the name of someone rich that would know him, *even if* he was a Roman citizen, would be crucified’

(147) Cic. *Verr.* II 3,209: ***quamuis*** *res mihi non placeat, tamen contra hominum auctoritatem pugnare non potero*
‘*although* this action does not please me, I will not be able to fight against the authority of such men’ (nonscalar use)
or ‘*however much* dislike I feel for this action, . . . ’ (scalar use)

Although the fact of being a *cīuis Rōmānus* ‘a Roman citizen’ is a nonscalar fact (since one is or is not a Roman citizen), the expression may acquire a qualitative and axiological (‘good’) semantic value in (146). We could also translate the clause as ‘although he was a Roman citizen’ with a nonscalar

293. We can use a future tense in English here, although *reperiās* is a present subjunctive.

interpretation; but the literary meaning may be a scalar one, along the lines of ‘*whatever degree* of Roman citizen he was’,[294] ‘*however* protected he was by his Roman citizenship’.

In the same way, the relational adjective *rēgius* ‘of the king(s)’ (which is equivalent to the genitive singular *rēgis* or plural *rēgum* denoting specific entities and cannot have a comparative or superlative form) may become a qualitative adjective when its individual semantic feature ‘splendid’ is the primary element in its signified (Plaut. *Mil.* 10: *uirum fortem … et forma regia* ‘a man courageous and of royal beauty’; Cic. *rep.* 6,10: *apparatu regio* ‘with royal sumptuousness’).

Since verbs denoting psychological states and feelings are scalar in Latin (they may be intensified by the preverb *per-* in *per-taedet*, *per-placet*, etc.), (147) is ambiguous: *quamuīs* could intensify *placeat* (scalar use) or, in contrast, could already be the nonscalar concessive subordinator well documented in post-Classical Latin. The negation *nōn* in the concessive subordinate clause could be a clue to a nonscalar interpretation, but nevertheless *non placeat* could also be understood as a semantic unit similar to Eng. *dislike*, which is a scalar predicate (cf. *I cannot tell you how much I dislike this*). This would be a particular kind of antonymy, a grammatical negation antonymy, as described by Moussy.[295]

The subordinator *quamuīs* no longer shows morphological variation in Classical Latin, but in Lucretius there is still variation between *-uīs* and *-libet* in the scalar concessive subordinator *quam-libet* that intensifies the adjective *immani* (148).

(148) Lucr. 3,987: ***quamlibet*** *immani proiectu corporis extet*
‘however immense was the extension of his body’

8.5. The origin and evolution of modal verbs

We mentioned previously (Section 7.3) an example of Lat. *uolō* ‘want’ that could be the origin of the use of volition verbs as future auxiliaries. In Late

294. A similar expression would be Fr. ‘*tout* citoyen romain qu’il était’.
295. Moussy (1998: 109; 2000, 2001).

Latin the modal verb "*dēbeō* + infinitive" also underwent grammaticalization when it was partially and occasionally used as a kind of semi-periphrasis to express necessity and a prospective process. This use, which must have existed in the spoken language, was maintained in the Romance languages. In Fr. *Il doit venir demain*, *devoir* is a semi-auxiliary, the whole sentence expressing an event that is supposed to happen in the future.[296]

Latin modal verbs[297] display a tendency to derive from a verb (or verbal complexeme) which at first denoted a concrete state of affairs: *licēre* was linked to the evaluation situation and *dēbēre* to the debt situation in a social relationship.

Most of the Latin modal verbs or verbal complexemes arose through a process of semantic and syntactic evolution that can be linked to grammaticalization. They come either from a single verb with a semantic development correlated with specialization of the syntactic construction (*dēbeō*, *licet*) or from a verbal syntagm that became agglutinated and frozen (*possum*, *necesse est*, *nequeō / queō*, *opus est*, *ūsus est*). The whole sequence usually evolved toward modality, while its constituents by themselves did not express modality.

8.6. Origin of *licet*

The impersonal verb *licet* 'it is allowed to' comes from the grammaticalization of the personal verb *liceō* 'I am for sale; I am auctioned'. The basic meaning is 'I am proposed for sale, I am available'. In this active form of *liceō*, the subject refers to the entity that is to be sold. The Latin verbal stem *licē-* (with a stative long *-ē-*) expresses 'offer' and 'availability'. As a modal verb, *licet* 'it is possible, it is permitted' is a case of grammaticalization, since it is a special use of a stative personal verb, *liceō*, in a concrete situation where the grammatical subject of the verb denotes the entity (patient) which is on sale.

296. The same development, leading this time to complete grammaticalization and morphologization, is attested for the descendant of Ancient Greek μέλλω in Modern Greek.
297. Fruyt and Orlandini (2003).

The personal verb *liceō* ‘I am for sale’ became an impersonal verb when its subject was an infinitive or a clause referring to a state of affairs.[298] Then *licet* evolved toward possibility and permission: *mihi licet facere* ‘I am allowed to do . . . ’. But all these stages of grammaticalization may have been synchronically concurrent, and *licet* shows permanent polysemy.

Beside this active form of *liceō*, where the grammatical subject refers to the entity that is to be sold, there exists a deponent verb *liceor* ‘to make a bid, to bid at an auction’. Its grammatical subject refers to the person who bids and who is the potential buyer.[299] The verbal stem *licē-* is a Latin synchronic “root” expressing ‘offer’ and ‘availability’.[300]

8.7. The origin of *necesse est*

Necesse est ‘it is indispensable, necessary to’ expresses deontic and alethic modality for events that the speaker cannot control and which exist prior to the speech utterance; it has the sense ‘it is inevitable, it is determined by natural law’.

Necesse est is a case of reanalysis. A new lexeme was created from a syntactic unit, reinterpreted and then frozen into a lexical unit. *Necesse est* ‘it is necessary that’, expressing necessity, comes from a syntagm meaning ‘there is no way to escape from, it can not be avoided that’.

The frozen syntagm contains three elements: (a) the inherited negation **ne* (with short *e*); (b) a verbal noun **cessis* or **cessus* formed with the **-ti-* or **-tu-* suffix on the synchronic root *cēd-*, the verbal stem of *cēdō* in its old meaning ‘go, walk’ and, more precisely, ‘go away, withdraw’; (c) the enclitic form *est* of the verb ‘be’, third person singular.

The whole sequence **ne cessis est* or **ne cessus est* formed a new lexeme. Its literal meaning would have been ‘there is no escape from’.

298. The same phenomenon is mentioned by König (1988: 156). Concrete notions lose their concrete meaning when predicated about propositions or states of affairs.

299. These two verbs reflect an Indo-European root **leik- / *lik-* (here with a short *i*, followed by the stative long *e-* < -**eh*$_1$-).

300. It is probably from this semantic feature ‘free, available’ that the meaning of *licentia* ‘freedom’ and ‘excessive freedom’ can be explained.

A similar type of semantic pattern is attested in Plautus in the speech of a character who thinks he is in a desperate situation (149).

(149) Plaut. *Capt.* 519: *neque exitium exitio est*
lit. 'there is no way out of the going out (from life)'; thus 'I cannot avoid death, I will necessarily die'

The first elements of these sequences **ne cessis est* or **ne cessus est* (with the loss of the final consonant of the first element) phonetically gave **necesse*, and the whole sequence became *necessest* (with apheresis of the initial vowel of *est*), which was reanalyzed as *necesse est*. Thus a new "word" *necesse* existed for the speaker and it was synchronically reinterpreted as an adjective in the neuter gender (by analogy, for example, with *uērīsimile est).* This reanalysis as an adjective is confirmed by its use as a derivation base for the noun *necess-itās* 'necessity', suffixed with *-tās*, *-tāt-is* feminine, which forms "abstract" nouns derived from adjectives.

Of course, in *necesse est* the old negation is demotivated and no longer felt by the speaker, for whom there is no morpheme boundary between *ne-* and *-cesse*.

8.8. Agglutination and downgrading: *possum*, *potest*

8.8.1. Reanalysis

Possum, expressing mainly ability, capacity, and possibility ('be able, can, may'), also comes from reanalysis of a frozen sequence of two words: the (inherited) adjective *potis*, *-e* 'able to' agglutinated with a form of the verb *sum* 'be'.

In the archaic period, since the final consonant of *potis* had a tendency to disappear in pronunciation, in the third person singular the sequence gave *potest*, and *potes* in the second person. At that time, *potis*, *-e* was no longer a productive lexeme, since it had a defective inflection and was only used in this sequence.

The inflection of *possum* led to reanalysis into two morphemes: a synchronic root *pot- / pos-* (in complementary distribution, respectively before

a vowel and before *s*) and a bound form of the verb *sum* (*pos-sum*, *pot-es*, *pot-est*, etc.).

8.8.2. *Semantic evolution*

The meaning of the Latin adjective *potis*, *-e* 'able to' already shows a kind of grammaticalization since it is a semantic evolution from the Indo-European root **pot- / *pet-* denoting possession and property (Skt. *patiḥ* 'master, husband', *dám-pati-ḥ* 'master, owner of the house', Gk. πόσις 'husband', δεσπότης 'master, owner of the house'; Lith. *pàts* 'husband' and 'himself, in person'). Thus an Indo-European root denoting possession, control, and property has been grammaticalized into a word expressing ability.

This semantic correlation between possession and ability-capacity-possibility is well attested in other Indo-European languages and can still be seen in Latin in the compound verb *possideō* 'own, possess' (from **pot(i)-* and *sedeō*) and in the compound adjective *com-pos*. This adjective can display both meanings: ability, when governing the genitive *animī* ('who controls his own behavior'; cf. its antonym *im-pos* (Plaut.) 'who does not control ...'); and possession, when followed by *lībertātis* (*compos lībertātis*: Plaut. *Capt.* 41: 'who recovered his freedom').

The possibility meaning for *possum* must have started with *pote est* and *potest*, the grammatical subject being an infinitive or a subordinate clause. As we have already seen in other cases, the semantic evolution toward an increased degree of modality is linked to a limitation on inflectional variation and the fact that the grammatical subject denotes a state of affairs, an event instead of a concrete entity.

In line with the arguments developed by Meillet for the formation of subordinating conjunctions, we can even quote the use of *pote* as a constituent of the subordinating complexeme introducing a relative clause with a causal meaning (+ subjunctive): *ut pote quī ... (utpote quī*). Its origin is probably to be found in *ut pote* 'as much as is possible'.

8.8.3. *From a personal to an impersonal verb*

Possum was used as a personal verb, but also (and this developed in post-Classical and Late Latin) as an impersonal verb meaning 'it is possible that'

when governing an infinitive or an accusative + infinitive. This is a further case of grammaticalization.

8.9. A semantic development from a concrete social situation to modality: *dēbeō*

Lat. *dēbeō* displays the same polysemy as its descendants in the Romance languages (cf. Fr. *devoir*). Its use as a modal verb probably derives from a concrete social situation denoting the debt that someone has toward someone else.

The verb **dē-habeō* (> *dēbeō*), built with the preverb *dē-* and the verb *habeō* in its possessive meaning 'have, own', meant at first 'I have something (*habeō*) that I received from (*dē-*) someone else' and therefore 'I am indebted for it toward someone, I owe him something, 'I am under an obligation to return the service'.

From this debt situation and from the notion of obligation (in the etymological sense of the term), there derived the meaning of necessity and the deontic sense of *dēbeō*: *dēbeō facere* 'I have to do'. *Dēbēre* with weak deontic modality 'I ought to' expressed the judgment of the speaker on what should be done (150).

(150) Cic. *Lael.* 36: *quam ob rem id primum uideamus … quatenus amor in amicitia progredi* ***debeat***
'wherefore, let us first consider how far love *ought to* go in friendship'

8.10. *Queō* 'can, be able' and *ne-queō* 'not be able'

Queō and its negative counterpart *ne-queō* express ability 'I am able to' and inability 'I am not able to'. Synchronically, they are morphological antonyms and, more precisely, negative antonyms,[301] *ne-* being perceived as the nega-

301. Cf. Lyons (1977, 1: 277): morphological antonyms; Martin (1976: 66): negation antonyms; for this kind of morphological negation antonym in Latin, see Moussy (1998:

tive prefix. But historically, *nequeō* is older than *queō*, the positive form being formed on the negative one by back formation. This deprefixation happened after the reanalysis of *ne-* as a negative morpheme.

The process begins with the agglutination of the sequence **neque ītur* 'it does not go well', with the impersonal passive of *īre* 'to go' and the word *ne-que*, which contains the negation *ne-* and the coordinator *-que.* This gave **nequītur*, in one word. From this impersonal passive form was created a personal verb *nequeō*, *nequīre* 'I am not able to' with a full paradigm, which is actually the opposite of grammaticalization. The language created the missing paradigmatic forms which were felt as "gaps" that were filled. There was an increase in the number of inflectional varieties and the creation of a full lexeme.

Then a second reanalysis of *nequeō* occurred, with a new morphemic analysis, consisting of the negative prefix *ne-* and *queō*. This led to the creation of a second lexeme, a positive verb *queō* 'I am able to' from the shortening and deprefixation of what was felt to be the negative counterpart.

8.11. The illocutionary adverb *nīmīrum*

The illocutionary adverb *nī-mīrum* 'evidently, presumably, of course', which is mainly used ironically, also includes a negation in its formation. It is the agglutination of two words: *nī-*, the archaic reinforced negation (often used instead of *nisi*), and *mīrum*, the neuter of the adjective *mīrus* 'astonishing, remarkable'. *Nīmīrum* is probably an adaptation of the complex lexicalized sequence: *mīrum (est) nī* 'I should be surprised if … not, I feel sure that…', with an ironic intonation.

8.12. The modal adverb *forsitan* 'perhaps'

Several modal lexemes can be analyzed as grammaticalized forms, such as "*forsitan* + subjunctive" 'maybe, perhaps', made up of *fors* 'destiny, chance',

110, 2000: 51, 2001: 485).

sit present subjunctive of ‘to be’, and a particle. The same grammaticalization process is well documented in Eng. *maybe* (from *it may be*) and Fr. *peut-être* (from the sequence *peut être* in the verbal syntagm *il peut être que* . . .).

8.13. Conclusion

The analysis in Section 8 has mainly dealt with *licet*, which is at the same time a modal lexeme and a subordinating conjunction, having undergone several processes of grammaticalization one after another.

The concessive lexemes (either subordinating or nonsubordinating) that have been considered, as well as modal lexemes, usually come from nonconcessive and nonmodal expressions respectively.

In most of these cases, grammaticalization coincides with specialization, the creation of a more specific grammatical tool (*quam-uīs*, *necesse est*). The loss of concrete reference is concomitant with semantic development leading to a more abstract meaning (*necesse est*; *licet*; *dēbeō*, *dēbet*).

Agglutination played an important role in the construction of the Latin concessive subordinators as well as of modal lexemes (cf. *quam-uīs*, *necesse est*, *nī-mīrum*). This confirms that agglutination, as a specific kind of word formation, occupies a fundamental position in grammaticalization.

9. Grammaticalization and the formation of quantifiers

9.1. Grammaticalization of a noun as a quantifier

9.1.1. A noun denoting a body part

In many languages, a lexical noun denoting an entity and especially a part of the body can become a quantifier. It then governs an adnominal complement which denotes the quantified entity: Eng. *a lump of sugar*, *a bunch of flowers*, *a mouthful of bread*, *a handful of men*, *by the armful*; Fr. *une poignée d’hommes* ‘a handful of men, a small number of men’ (*poignée* ← *poing* ‘fist’), *une brassée de fleurs* (*brassée* ‘armful’ ← *bras* ‘arm’), *une pincée de*

sel ‘ a pinch of salt’ (*pincée* ← *pincer* ‘pinch’, i.e., ‘the amount of salt that one can pinch between two fingers’).

This is a case of grammaticalization, since the semantic evolution involves a decrease in the number of semantic lexical features. The concrete reference to a body part, for example, disappears in Eng. *a handful of men*. The sequence *a handful of* is lexicalized and is no longer a free syntagm. It may even be considered a lexicalized metaphor of a body part. Its referential sense is of a small quantity, a small number of men. The word *handful* is still motivated for the speaker, who may still be aware of the word formation, but *hand-* and *-ful* are no longer morphemes. The morpheme is now the whole word *handful*, which is used for quantifying purposes. Quantifiers in a given language are more grammatical than lexical items, so that the use of *handful* as a quantifier is a case of grammaticalization; it shows a shift toward the grammatical part of the lexicon.

The same phenomenon occurred in Latin, when a noun denoting a body part was lexicalized as a quantifier of a small quantity. The noun *bucca* ‘mouth’ governing a partitive genitive (denoting the inanimate entity which is eaten) is used in order to denote a small quantity of food (151). Another indication of the grammaticalized status of *bucca* as a quantifier is the fact that it may be determined by a numeral (152). This semantic phenomenon is also seen in Fr. *une bouchée de pain* ‘a mouthful of bread’ (from *bouche* ‘mouth’) for ‘a small amount of bread’. This is obviously a “path” for grammaticalization in languages. The French expression is a cyclic renewal of the Latin, and similar occurrences can be seen in other Romance languages.

(151) Petron. 44,2: *non mehercules hodie* ***buccam panis*** *inuenire potui*
‘Today I have not been able to find (even) *a mouthful of bread*’

(152) Suet. *Aug*. 76,4: *duas* ***buccas*** *manducaui*
‘I have eaten (only) two *mouthfuls* of bread’

9.1.2. An inanimate noun denoting a small quantity

Some nouns, such as *gutta* ‘drop’, *odor* ‘smell’, are lexical items, but they are also used, in the same period, as quantifiers. This is mainly the case for a very small quantity and for the absence of something.

As seen previously for negation (Sections 4.1–4.2), some nouns denoting the smallest quantity in a certain domain – the scalar minimum – are associated with a negation to denote the absence of something. The Latin noun *gutta* 'drop' in (153) reminds us of the semantic structure documented in Old French *goutte* in *ne ... goutte* (Section 4.1):

(153) Plaut. *Pseud*. 397: *quoi* ***neque*** *paratast* ***gutta*** *certi consilii*
'you have *nothing* ready, not *a drop* of a definite plan' (lit. 'you have not a drop of a definite plan prepared')

Thus the Old French negation *ne ... goutte* is probably a cyclic renewal of this Latin use.

The noun *odor* (*-ōr-is* masc.) 'smell' can also be grammaticalized into a nominal quantifier. According to the underlying *topos* in use in the speech community, the smell precedes the entity itself from which the smell originates, and, therefore, the smell gives a foretaste of a given entity, a small, vague representation of it in advance. In (154), *odor* is determined by another quantifier *nōnnūllus* 'some' and a partitive genitive. In this sentence, Cicero uses a litotes. *Nōnnūllus* 'some' involves a positive argumentative orientation toward the following assertion: 'there are, definitely, some signs of dictatorship'.

(154) Cic. *Att*. 4,18,3: *et est nonnullus* ***odor*** *dictaturae*
'and it smells somewhat of dictatorship' (lit. 'there is a slight odor of dictatorship')

The noun *spēs* 'hope' is also used by Pliny the Elder to denote a very small quantity of color. This use of *spēs* retained the semantic feature 'virtual' by opposition to the real concrete entity.[302] In the same book of Pliny, two means are used to express a hint of a specific color: the indefinite pronoun *aliquid* 'something', which here denotes a minimal quantity, 'a little bit of' (+ a partitive genitive: *quae purpurae aliquid habet* 'which has a little bit of purple'; *nat*. 37,116) and the noun *spēs* (+ a partitive genitive): *spēs purpurae* 'a hint of purple' (*nat.* 37,87).

302. The same semantic phenomenon is found in Eng. *a hint of red*. Cf. Fr. *un soupçon de rouge, une ombre de rouge.*

The nominal quantifier denoting a very small quantity may also be a constituent in a negative lexicalized verbal phrase, following the same semantic pattern as *nihil*:[303] *nōn mū facere* 'not even say "*mū*"', therefore 'be completely silent'. In this lexicalized phrase, *mū* is originally an onomatopoeia imitating the sound made by a person who has nothing to say and only grumbles.

The same semantic pattern is at work in the verbal lexicalized phrases *nōn naucī*[304] *facere* (+ acc.), *nōn floccī facere* (+ acc.) 'to take no account of someone or something'. The words *naucī* and *floccī* come from two lexemes denoting some vegetal parts of a plant: *naucum*, *-ī* neut. (*naucus* masc.) 'a thing of trifling value'[305] and *floccus*, *-ī* masc. (or *floccum* neut.) 'a tuft or wisp of wool'.

The same kind of entity selected as a scalar minimum is documented in Eng. *not to care a hill of beans about*, where *hill of beans* also denotes metaphorically a very small vegetal entity.[306]

9.2. Grammaticalization of a prefix as a quasi-negative morpheme

In some nominal compounds, the prefixes *ex-*, *dē-*, and *ā-* are grammaticalized since they denote the absence of something or, more precisely, the loss of something: *ā-mēns*, *dē-mēns* 'mad, out of his mind', *ex-pers* 'deprived of', *ex-sangu-is* 'deprived of blood, who has lost his blood'.

303. See Section 4.2 on negation.

304. Cf. also as a nominal group *nōn naucī* 'worthless, of no account'. The final long *-ī* in *nauc-ī* and *flocc-ī* appears to be a genitive singular ending but is probably analogous to *nihil-ī facere* (+ acc.), *magn-ī facere* (+ acc.), and could originally (cf. Wackernagel 1908: 134) be an inherited adverbial ending visible in Sanskrit adverbs in *-ī*.

305. This word is explained by Paulus Diaconus or Festus in Paul., Fest. p. 167,5–9 by reference to several vegetal objects: ***Naucus*** *pro nugis ponitur, alias pro oleae aut nucis nucleo. Alii omnium rerum putamen ita appellari uolunt … Quidam uolunt sic appellari membranulam, quae in nucis iugulandis est medio.*

306. 'Hill of beans' is the precise literal meaning of Lat. *nihil* < *ne hīlum*.

Their semantic equivalent would be Eng. *no more*, *not any more*. Thus they differ from the negative inherited prefix *in-*, which is usually a neutral or standard[307] negation: *in-imīcus* vs. *amīcus*, *in-dignus* vs. *dignus*.

These grammaticalized prefixes *ex-*, *dē-*, and *ā-* tend to be integrated into certain subclasses of negatives depending on how they fit into three semantic categories: the neutral negation, the 'no more' negation (*nōn* ... *iam*), and the 'not yet' negation (*nōn-dum*).

9.3. Grammaticalization of a lexical or semi-lexical axiological (evaluative) adverb

9.3.1. The adverb ualdē*: An intensive morpheme*

According to its origin, the adverb *ualdē* 'vigorously' is a lexical word, since it is derived from the adjective *ualidus*, *-a*, *-um* 'strong, in good health' (with syncope of the short *i* in an open medial posttonic syllable). But it is grammaticalized into a quantifier when used to modify a verb, an adjective, or an adverb with intensive meaning. It may be translated with 'to a high degree, intensively, completely' with a verb (155) and by 'very, extremely' with an adjective (156) or an adverb.

(155) Cic. *de orat*. 1,126: ***ualde*** *tibi adsentior*
'I *completely* agree with you'

(156) Varro *rust.* 3,14,4: ***ualde*** *amplae sunt* (*cochleae*) *ex Africa*
'*very* large snails come from Africa'

This quantifying use for intensity that denotes a high degree of a specific quality increased in Late Latin, where *ualdē* appears with high frequency in texts that are quite close to the colloquial language (in the *Itinerarium Egeriae*, for example).

307. The Latin negative prefix *in-* can also have the meaning 'not yet', for example in possessive adjectival compounds (i.e., bahuvrīhi) like *im-berb-is* 'beardless' when it is an indication of age ('who does not yet have a beard').

A cyclic renewal of this pattern is documented in Fr. *fort* in *Cela est* ***fort*** *désagréable* 'this is *very* unpleasant' as an elegant variant for *Cela est* ***très*** *désagréable*. The adverb *fort* is related to the adjective *fort* 'strong'.[308]

9.3.2. The adverb bene*: From axiological (evaluative) adverb to quantifier*

In most of our previous examples, the process has gone as far as the total demotivation of the element in question. But there are also cases where the process has not been completed.

The beginnings of the formation of a quantifier can be seen in the Latin axiological adverb *bene* 'well' and its antonym *male* 'badly', which both tend to become intensifiers and sometimes even prefixes – that is, bound morphemes with a restricted semantic value. The final *-e* of *bene* and *male* was originally long, but it was generally shortened by the iambic law (*brevis brevians*); although this law is not obligatory, it is usual for grammatical or lexico-grammatical words of high freqeuncy.

Bene modifies adjectives and adverbs with the meaning 'quite, thoroughly' ((157)–(160)).[309] Example (160) shows a cyclic renewal in the sequence *bene māne*, since the temporal adverb *māne* 'early in the day, in the morning' is itself derived from an old adjective meaning 'good' (Section 1.2.2; **mānis*, *-e* / **mānus*, *-a*, *-um*). This semantic pattern was maintained or reproduced in the Romance languages (Fr. *de bon matin* 'very early in the morning'; *de bonne heure*) and it is also documented in other Indo-European languages (cf. Eng. *He arrived well in advance*). Therefore, this appears to be an easy "path" for grammaticalization to follow.

(157) Cic. *Att.* 14,7,2: *litterae …* ***bene*** *longae*
'a *quite* long letter'

(158) Cato *agr.* 77: *simplicibus completo* ***bene*** *arte*
'fill in *very* closely with plain pieces of pastry'

308. The English adverb *hard-ly* (from the adjective *hard*) has also undergone grammaticalization, but in the opposite semantic direction, this time toward negation: *it is* ***hardly*** *possible* belongs to the negative paradigm *it is* ***not*** *possible.*

309. This use of Lat. *bene* is documented in French (an inherited phenomenon or a cyclic renewal?): *il est venu* ***bien*** *avant le lever du jour. Il est* ***bien*** *bavard aujourd'hui*.

(159) Cic. *Verr.* II 2,169: ***bene*** *penitus in istius familiaritatem sese dedit*
'he worked his way *very* thoroughly into intimacy with this man (Verres)'

(160) Cic. *Att.* 10,16,1: *commodum ad te dederam litteras de pluribus rebus, cum ad me* ***bene*** *mane Dionysius fuit*
'I had just sent a letter to you about a number of matters, when *very* early in the morning Dionysius arrived at my house'

As an intensifier, *bene* often maintained its axiological sense[310] of 'well, nicely' (161). Since the prepositional group *ante lūcem* 'before daylight' is lexicalized into a temporal adverb (Sections 1.2.2, 3.1), it may be intensified by *bene* (162). The adverb *bene* is also downgraded as a verb constituent in *bene-dīcere* and *bene-facere*, and these verbs are probably agglutinated sequences of the free lexeme *bene* and the verbs *dīcere* and *facere*. But in these formations, *bene* is not a quantifier and keeps its axiological sense 'well'.

(161) Cato *agr.* 76,1: *ubi* (*alica*) ***bene*** *mollis erit*
'when the flour is *quite* soft (smooth)'

(162) Cic. *de orat.* 2,259: *qui te rogasset num tibi molestus esset futurus si ad te* ***bene*** *ante lucem uenisset*
'(the person) who had asked you whether he would be a nuisance to you if he were to visit you *well* before daylight'

9.3.3. The adverb male*: A progressive grammaticalization*

The adverb *male* 'badly' usually maintained its original axiological meaning involving a depreciative connotation and a qualitative pejorative judgement: 'unpleasantly, painfully, wickedly'.

It could be applied to verbs (*dīcere*, *audīre*, *facere*), as well as to adjectives and adverbs with a deprecatory or laudatory meaning. When modifying a deprecatory adjective, *male* would reinforce and intensify the deprecatory

310. Eng. *well* underwent the same semantic evolution from an axiological to a purely quantitative sense.

semantic feature of the modified adjective: *male* then functioned as an intensifier. When applied to a laudatory adjective, *male* was an inversion operator, entering the paradigm of a negation.

In Archaic and Classical Latin, *male* was mainly used for the intensification of lexemes already containing an unpleasant or deprecatory connotation ((163)–(164)).

(163) Hor. *sat.* 1,3,45: ***male*** *paruus si cui filius est*
'if someone has a son who is *too small*' (i.e., who does not grow properly)

(164) Plaut. *Most*. 609: *calidum hoc est: etsi procul abest, urit* ***male***
'it is hot: although it is far away, it burns *badly*'[311]

When modifying a verb, *male* could be agglutinated before it. It would then be downgraded to a word constituent as in *male-faciō* 'to act wrongly', as well as in the noun (derived from the past participle in **-to-*) *male-factum*, *-ī* neut. 'a wrongdoing, a misdeed, an injury'.[312] It was also agglutinated in the verb *male-dīcere* 'to speak ill of, to insult' and the adjective *male-dīcāx* 'abusive' (Plautus).[313]

But on the other hand, when *male* modified a laudatory lexeme, it became a kind a negative operator. In the Latin type *male sānus*, *male* enters the paradigm of negation, since it modifies a laudatory adjective (*sānus* 'healthy'), while the meaning of the whole sequence belongs to the paradigm of 'not healthy'. Thus *male sānus* is part of the same negative paradigm as *in-sānus* or *nōn sānus*.[314] But even when used as a quasi-negation with adjectives, *male* still usually kept some deprecatory axiological features: 'not properly, ill' ((165)–(166)). The axiological sense 'badly' is clear when *male* is associated with the "diminutive" depreciative suffix *-culus* (167).

311. The same semantic development is seen in Eng. *badly*.
312. But in the adjective *male-ficus* 'wicked' (from which the suffixed noun *malefic-ium* was created), *male* is the first term of a compound in the subsystem of causative adjectives in °*-ficus*.
313. But *male* is the first term of a compound in the adjective *male-dīcus* (Cicero; hence the adverb *male-dīcē* Cicero, Livy). The *-tiō* suffixed process noun *maledic-tiō, -ōnis* feminine 'slander, abuse' (Cicero) is built on the verbal stem of *male-dīc-e-re*.
314. See Ricca (this work, vol. 2).

(165) Verg. *georg.* 1,105: *cumulosque ruit* ***male*** *pinguis harenae*
'he breaks the clods of an *infertile* sand'

(166) Cic. *Att.* 2,1,5: *non consulare, inquies, dictum. Fateor; sed ego illam odi* ***male*** *consularem*
'you will say it was not the remark for a consul to make. I agree; but I hate the woman, so *unworthy* of a consul'

(167) Liv. 35,49,9: *uideretis uix duarum* ***male*** *plenarum legiuncularum instar in castris regis*
'you would scarcely find the like of two poor legions of reduced strength in the camp of the king'

In its grammaticalized form, the lexeme *male* was already a negative morpheme, but the grammaticalization process went even further when *male-* became a negative bound morpheme and a mere negative prefix.[315] This stage may have been reached in Latin. It has certainly been reached in French. The downgrading went even further in the French adjectives *mal-sain* 'unhealthy', *mal-propre* 'not clean, dirty', where *mal-* is fully lexicalized and frozen inside a lexeme. It is no longer a morpheme, but only a motivated morphological element. In an even further stage of downgrading, the first element became totally demotivated in *maussade*, since this adjective came from the adverb *mal* (from Lat. *male*) and the old adjective *sade* 'pleasant' (from Lat. **sapidus*).

10. Conclusions

10.1. Grammaticalization: A slow process in a long diachrony

Grammaticalization is only one of the processes at work in language change, but it is an important one.

It is a slow process whose documentation requires texts spread over a very long period of time. It is for this reason that we have taken into account

315. Cf. the morphological status of Eng. *ill-* in *ill-advised*, *ill-disposed*, *ill-conditioned*, *ill-tempered*.

here the whole diachrony of Latin texts and have even continued this on into Old and Modern French.

Grammaticalization develops slowly along a continuum. Full grammaticalization has only been reached when the phenomenon in question has become common in the language and is documented with a high degree of frequency. Before that stage, the texts may show only sporadic forerunners, although the phenomenon may actually have been much more widespread in the colloquial language of the time.

10.2. Absence of congruence for the various criteria

Along this continuum, the various criteria that are significant for grammaticalization are not all documented at the same time. A given structure may be grammaticalized according to one or two criteria, but not according to the others. The same occurrence may be grammaticalized from one point of view, but it may not yet have been grammaticalized from another. In the same occurrence, there may coexist data belonging to the new grammaticalized structure alongside others relating to the old, non-grammaticalized one. Since the different criteria are not all fulfilled at the same time, wide variations of form and function can often be found.

10.3. Cyclic renewal

Some cases of grammaticalization may be so fundamental in a given language that they will occur several times across the diachrony of that language. They are repeated in successive periods that may be separated by long periods of time – but it will be the same reasons that give rise to the same consequences. These are cases of cyclic renewal.

But since these renewals do not use exactly the same linguistic material as was used the first time, Meillet suggests the image of a spiral rather than a cycle. They use more recent material, adapted to the linguistically productive means of the time. In fact, with each case of renewal, there is an updating of the linguistic tools used. We have suggested the word *helix* for some of these recurrent cases.

We have thus drawn attention to those examples of renewal that have occurred in the long diachronic chain running from the period before the first Latin texts right through to the Romance languages. Although we have mainly used French for our examples here, the cases mentioned also have their equivalents in other Romance languages.

However, we must be careful, when analyzing these cases in the Romance languages, to distinguish clearly between real, contemporaneous renewals and those examples that are simply the continuation, without any break in oral transmission, of slowly developing phenomena that have their direct origins in the Latin period.

10.4. A preference given to morphologization and downgrading

Among the numerous phenomena that have been called *grammaticalization* by linguists over the last quarter century, we have particularly stressed here those cases of morphologization (the construction of the verbal paradigm) and those examples that are the antecedents of major restructuring of parts of the grammatical system (particularly deixis and endophor). In doing so, we have consciously limited the concept of grammaticalization to the area dealing with the creation of grammatical categories.

We have also stressed the cases where grammaticalization entails downgrading from a free lexeme (a morpheme, i.e., a minimal semantic unit) to a bound morpheme and to an affix. We have included some situations where the morpheme boundaries are lost. But we have not considered the final steps in downgrading, when an affix is totally demotivated as a morphological element and is subject to phonetic attrition like any other part of the language. These cases are situated outside the grammatical area of the language.

Thus the core of the present study on grammaticalization has been situated within the grammatical aspects of the Latin language, at the interface between lexicon and grammar and analyzing the shifts from syntax to lexicon and from lexicon to grammar.

10.5. Other cases of grammaticalization

Although we have attempted to give a large number of examples, we have obviously not made a comprehensive study of all the cases of grammaticalization documented in the Latin texts and in the hypothetical data from spoken Latin.

Many other examples could be given, for example for the process of agglutination, which is a fundamental aspect of downgrading and thus of grammaticalization.

For the verbs ‘go’, ‘eat’, and so on, we could also have developed the various Latin antecedents of the verbal suppletions documented in the Romance languages.

Nevertheless, we hope to have been able to shed some light on the most important and characteristic processes of grammaticalization. And, at the least, our study will have shown that the Latin language provides an investigative field of exceptional wealth and variety for the study of grammaticalization.

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Philip Baldi and Pierluigi Cuzzolin

Syntactic change in the history of Latin: Do new perspectives lead to new results?

1. Introduction[1]

As the editors of these volumes, in this chapter we take the opportunity to present our own view of some of the major issues treated in the four volumes of *New Perspectives on Historical Latin Syntax*, and a few which are not. The chapter is by design short and compact; it is not intended as a restatement or confirmation of the contents of the four volumes, with which it occasionally differs. This is the result of the fact that the process of editing the individual papers of this historical syntax quite naturally prompted us to reflect on the issues, which over time caused us to change our own opinions and perspectives on language change and the methodology we used to treat it. Many issues discussed in detail in *New Perspectives* are not treated in this Introduction; conversely, some of the issues we take up here are not dealt with in any of the other twenty-three chapters. As a matter of presentation, we do not offer exhaustive bibliographical support for our claims, nor do we engage in lengthy argumentation with contrasting illustrations from the literature, or extensive lists of original examples. Our purpose is to confront and evaluate some, not all, of the issues provoked by this historical syntax.

1. The authors wish to thank Harm Pinkster, Michèle Fruyt, and John Lipski for their helpful comments and suggestions. They are blameless, of course, for whatever shortcomings remain.

2. Determinants of syntactic change

It is sometimes claimed (see, e.g., Harris and Campbell 1995) that there are three basic mechanisms of syntactic change: *reanalysis*, *extension*, and *borrowing*.

Reanalysis is the most powerful of these, affecting such categories as morphological marking, agreement, constituency, hierarchical relations, and word order. It basically involves the reinterpretation of underlying structures and is linked to an abstract representation of syntax. The category is quite broad, and we acknowledge its utility in handling various phenomena, especially some structurally based changes. We consider reanalysis to be a powerful and necessary tool, which is of course not exclusive to syntax. Reanalysis can also take place in the phonology, morphology, and lexicon; indeed, the opportunity for reanalysis arises any time a potentially ambiguous element is left open for reinterpretation.

Extension involves the reassignment of structures which have been brought about by reanalysis, as when the purposive with *go* (*I am going to see Bill* = *I am going for the purpose of seeing Bill*) is extended to occur with new verbs and results in a new tense category, exemplified by *I am going to think about it*, or *I am going to be late*. The process is completed when a sentence like *I am going to go* is possible, in which the new auxiliary *to go*, occurring with the main verb *to go* itself, appears to be completely grammaticalized as a tense (actional) marker. This is essentially analogy, a process which is often at work in linguistic change. While we do not appeal directly to extension, or analogy, as a primary mechanism of change in our analysis, we certainly acknowledge its potential.

Borrowing is considered to be rare as a mechanism of syntactic change, largely because of the constraints imposed by the receptor language, but in fact is more common than generally thought, typically finding its way into a language via the lexicon. We acknowledge, at least in principle, the possibility of borrowing into Latin from other languages such as Germanic as an admittedly remote factor reinforcing, or in some cases possibly even triggering, the loss of case endings; and Semitic as a distant influence in the development of the definite/indefinite articles.

As supplements to the mechanisms proposed by Harris and Campbell, we have identified four factors as central to the process of syntactic change

in Latin. We do not reject Harris and Campbell's set of factors. Rather, we seek to investigate other approaches and explanations and hope to improve the methodologies used to investigate syntactic change in general. Not all of the four factors play a part in every change, some overlap, and some are more prominent overall than others, but considered together they can at least serve as a guide in determining the foundations of syntactic change in Latin from a multifunctional perspective. The four factors are structure, typology, function, and pragmatics.

2.1. Structural processes

Identifying structural factors involved in syntactic change can be surprisingly difficult. Many instances of syntactic change begin elsewhere in the system, say in the phonology, and then ripple through the various levels. Consider as an example the contracted forms of English auxiliaries, which have been reduced by phonological processes to morpheme-like elements such as /d/ and /ə/ in *he'**d** go* (*he **would** go*) or *he'**də** gone* (*he **would have** gone*), creating essentially synthetic verbal structures from analytical ones. We will see structurally motivated changes in several areas discussed below, particularly in the discussion of the erosion of case endings through phonological change. This well-known development, through which the grammatical marking on nouns was compromised by mergers and losses, is a solid example of structurally based change.

2.2. Typological factors

Typology is not a theory of language; rather, typology is a method by which languages are grouped together and classified according to some structural parameter, such as the head–modifier principle. Ideally, typology should establish the parameters according to which we can evaluate different structural variations inside a language and see how they correlate, if they do. Typologically based historical explanations are centered around the implicational principle "If X then Y", such as the at least partial harmonization of sentence

word order with adjective–noun and genitive–noun constructional types, dictated by the head–modifier principle.

2.3. Functional factors

The functional perspective on human language (Noonan 1999) basically states that linguistic rules and changes in those rules are shaped by at least the following cognitive principles: *iconicity*, which refers to the direct association between a form and its meaning; *saliency*, which refers to the prominence of an element in an utterance; *information structure*, referring to the distribution of what is new and what is not in the flow of information of a given sentence; *economy*, which refers to efficiency in the linguistic system and the conservation of effort; *ease of perception* and the associated *recall*, which characterize the hearer's access to information; and finally the important principle of *diagrammaticity*, which defines the transparent relationship between linguistic forms (e.g., *walk* and *walked* are in a diagrammatic relationship, while *go* and *went* are not). Transparency is at work in the rise of auxiliaries like *habeo*, in the analytical expression of comparison, and elsewhere.

2.4. Pragmatic factors

Generally speaking, pragmatics deals with the contribution of context to the meaning of a sentence, and to the choices made by speakers in structuring a message. The need to make a particular notion salient in a given speech act is a frequent determinant of word order variation. Such commonplace discourse notions as topicalization or focus are regulated by the speaker's desire to bring cognitive prominence to some particular constituent of a given sentence. Such processes serve to rearrange expected word order patterns, which can in turn become restructured. Far from being the results of syntax alone, the resulting constituent discontinuities and reorderings are often the result of functional processes based on stylistic, rhetorical, or other strategies of information packaging, sometimes with lasting syntactic effects.

Throughout this chapter we remain true to our integrative philosophy. It would be a methodological triumph if it could be shown that some or all of the

changes discussed can be combined and generalized under a single rubric and be reduced to a single principle or strategy. This is a goal of every linguistic analysis – one which is, however, rarely attained. Behind this goal, however, it is easy to envisage the model of physics, where the reduction to the four basic forces present in nature should be described in a unified way and according to only one principle. But having the functional-typological perspective as one of the available avenues of inquiry, and structural approaches as the other, opens the door to greater and more significant generalizations, and that at least holds the promise of a triumph, however modest.

3. "Drift"

In 1921, Edward Sapir identified three phenomena in the history of Indo-European languages which, he proposed, were linked together. Sapir grouped these three overarching changes under the label "drift", an abstract, metaphysical force that guides a language through time "in a current of its own making". The basic claim is that there is a trend inherent to the Indo-European languages which regulates the direction of linguistic change, guiding their evolution from the fusional (e.g., Latin) type to the analytical (e.g., Spanish). The three changes Sapir linked by "drift" are:

1. the loss of cases
2. the stabilization of word order
3. the rise of the invariable word

Inspired in part by Sapir's formulation and by a follow-up assessment by Robin Lakoff in 1969 and many others too numerous to mention,[2] we believe that our "holistic" approach to syntactic change provides us with some fresh insights into the "drift" question and at the same time furnishes us with a testing ground for the approach we are advocating. Our assessment enlarges the number of issues from three to seven, each of which constitutes an important change in the history of the Latin language. The seven changes are:

2. Of course we are omitting from our discussion countless treatments of the "drift" question, e.g., the now outdated but still provocative Vennemann (1975), and Bauer (1995).

1. shifts in word order
2. the erosion of nominal and pronominal endings
3. prepositional usage
4. the development of definite and indefinite articles
5. the genesis of periphrastic auxiliaries
6. the rise of the comparative particle *quam*
7. the development of the *dicere quod* complementation strategy to replace the *Accusativus cum Infinitivo*.

We do not claim that the list is definitive or exhaustive, only that it is a useful guide for addressing the question of the motivations for syntactic change in Latin and for evaluating the "drift" question. Some of the changes have their beginnings already in late Proto-Indo-European or early Latin, flashing a glimpse, then disappearing from the literary record until hundreds of years later. They may have been in the system for an extended period, though mainly on a subliterary level. We are thinking here of such phenomena as the perfect passive participle with *habeo*, which makes its first appearance in the attested record in the Twelve Tables, then in Plautus, surfaces in Cicero, is noticeable in the work of the Church Fathers and very late authors like Gregory of Tours, then emerges full-blown as the standard marker of the French *passé composé* and its equivalents throughout the Romance languages.

We categorize the diagnostic changes in terms of their primary constituency – that is, whether they are nominal, verbal, or clausal. We begin with the nominal group.

3.1. Nominal constituents

3.1.1. Word order

From the nominal group there can be no disagreement over the primary importance of the word order issue.[3] At a minimum, change in word order also involves the issues of case erosion and prepositional usage.

3. Constituent order would be a more apt title for this section, but we use word order in order to maintain consistency with the literature on the topic. See Bauer, this work, vol. 1.

3.1.1.1. Facts about word order. As with fusional languages generally, word order in Latin does not play a strictly syntactic role, but rather a pragmatic, functional, or stylistic one. That is to say, speakers or writers of Latin texts have the option to package information in certain ways by ordering the words according to their intention. The customary analysis of Latin word order holds that the unmarked (neutral) order of the declarative sentence is subject–object–verb (SOV), at least for the literary language of the classical period. The implicational principle predicts that Latin, with its verb-final sentence structure, should have adjective–noun, genitive–noun, comparative–standard, and the all-important noun–postposition (on this see in particular Hawkins 1983, but refined later in other contributions; see Hawkins 1994a). Latin, however, does not conform to the implicational predictions, making it a "weak or flexible SOV language", as opposed to the "strong or rigid SOV" type, in which predictions are more likely to be met. SOV languages are predicted to be postpositional, but apart from a few stray postpositions, clearly archaic (e.g., *mecum*), Latin is strongly prepositional, even in those authors who maintain adherence to the classical SOV canon, as do Caesar and Cicero for the most part. For Latin, then, the use of word order as a predictor of constituent order in supposedly harmonic constructions is not a useful descriptive device. Moreover, and critical for diachrony, languages seem not to set "targets" according to which typological alignments are made, adjusting, say, the position of the adjective to harmonize it with the final verb. Certainly Latin does not set diachronic word order targets, or if it does, it rarely hits the mark.

3.1.1.2. Myths about word order. Probably the greatest myth about Latin word order is that it is "free". As noted by Marouzeau (1922) (see also the recent books of Devine and Stephens 2006, and Spevak 2010), Latin word order may be "free", but it is not "indifferent". In other words, there is a certain flexibility in available choices, but there are constraints on those choices. Another myth concerns the so-called unmarked order as the basic one. Word order is not a determinant but a result; that is, it is the intentions of the speaker in a given communicative situation that determine the order in which words are arranged. There is no word order independent of the intention of the speaker, and since every communicative act is motivated by the intentions of the person who makes it, there is no independent predictability for the order of con-

stituents in a sentence in natural speech. Given what we know about speech acts and the various uses to which language can be put, it is not unreasonable to deny the existence of the unmarked declarative sentence (in Latin, SOV) as the standard for determining the basic word order of a given language. The unmarked SOV sentence of the type *Romana classis hostium naues deleuit* 'the Roman fleet destroyed the enemies' ships' is a useful linguistic tool, but not necessarily one with psychological reality.

3.1.1.3. Discussion. A fundamental distinction needs to be made between constituent orders which are variable and those which are not. We describe Latin as a weak word order language, but in fact some aspects of the system are quite inflexible. Take, for example, the case of clitics and particles. Clitics and most particles are unstressed words, typically function words, without syntactic freedom; they are attached in pronunciation to a stressed word, the host, with which they form a single accentual unit. In the case of clitics there is no intrusion possible from other linguistic levels. Clitics cannot, for example, be dislocated for pragmatic effect, nor can they be attached anywhere but in the position dictated by the syntax. A further example of rigid order of constituent placement is to be seen in Wackernagel's Law (Wackernagel 1892), a rule of Indo-European syntax which survives in Classical Latin, see Adams (1994). Wackernagel's Law stipulates that a series of particles and other clitic-like elements must occupy a position in the clause after the first accented element (e.g. *tu* ***autem*** *in neruo iam iacebis* '**but** you will soon be lying in custody' (Plaut. *Curc.* 718). This rule is not subject to further stylistic or pragmatic manipulation. Once they are in place and have undergone attachment to their host, they stay there.

By contrast, consider the order of the adjective and noun in Latin, which is generally held to be adjective–noun (but on the weakness of the order adjective–noun, see Hawkins 1988). In fact this is a relatively weak rule, with exceptions ranging from commonplace to pervasive, depending on text type. We believe that the reason for this weak order is the fact that Latin has rigid agreement of gender, number, and case between adjectives and nouns, so that the co-indexing of a noun and its adjective in Latin is also marked by agreement, thereby reducing the functional load on order. This is in contrast with English, for example, which has no adjective–noun agreement but has rigid order between the two. Thus one part of the Latin

system (agreement) supports the other (order), allowing for greater variation.

Variability of word order for pragmatic effect can be the outcome of *hyperbaton* (scrambling), the radical separation of constituent members. Scrambling is only found in the most stylized text type and it is generally absent in standard prose works even of high style, such as the writings of Seneca and obviously in poetry. Naive assessments on Latin word order take even extensive scrambling in poetic texts and treat it as a structural process (Ross 1969: 292–293). Example (1) from Horace is illustrative of scrambling; dependencies are indicated by typeface:

(1) Hor. *carm.* 1,5,1–3: **quis** *multa* **gracilis** te **puer** *in rosa* / **perfusus** LIQUIDIS urget ODORIBUS / grato, Pyrrha, sub antro?
‘**what slender boy**, **drenched** with PERFUMES, is making love to you Pyrrha, on *a heap of roses*, in a delightful cave?’

The extreme dislocations which characterize this text clearly represent a case of conscious manipulation for pragmatic effect. It is not structural, even if structural descriptions can be written in the formalism of the day (as in Ross 1969), nor does this kind of manipulation result in any long-term changes in the history of Latin. We cite this example simply to illustrate that word order variation, whether the extreme variety we see here or the more mild variety seen in topic dislocations or other prominence-raising processes, are not to be explained by implicational principles of alignment, nor by some crude structure-driven rules of movement. Indeed, the only structure-based word order principles seem to be ones such as clitic placement, which is governed entirely by constituency and grammatical class. Clitic placement is anaesthetic to dislocation and other nonstructural processes and is not random with respect to the verb.

In general, the variability of certain constituent orders can be explained by the fact that various pertinent factors can override syntax; for example, one could have the object before the subject because of its saliency in a particular sentence, or the object after the verb because of Behaghel’s Law (Behaghel 1909). This “law” locates information-heavy phrasal elements to the right of the verb according to cognitive principles such as ease of *perception* and *recall*, and not simply syntactic criteria.

What seems to be at work in Latin word order change is a set of functional strategies which reorder the constituency of sentences, including *diagrammaticity*, *informational load*, *iconicity*, and *cognitive saliency*. Specifically, we propose that the dislocation of heavy noun phrase objects to a position after the verb (covered under Behaghel's Law) is the primary mechanism behind the change from SOV to SVO sentence structure. The number and complexity of various object types in Latin is considerable in comparison with other constituents, not only simple noun phrases but also various types of object clauses such as *Accusativus cum Infinitivo*, or objects with dependent clauses, and so on, with each contributing to the weighting of the final position as the position of the object. Examples (2) and (3) illustrate an old-information (pronominal) object, while (4) and (5) show the effects of focusing the object in final position, even object pronouns when used contrastively; (6) and (7) show constituents other than canonical direct objects in final position.

(2) Ter. *Hec*. 766: *hoc* ***te*** *moneo unum*
'I give **you** this one piece of advice'

(3) Cic. *Att*. 1,1,5: *multum* ***te*** *amamus*
'we love **you** very much'

(4) Cic. *Att*. 13,22,4: *illud accuso* ***non te, sed illum***
I make that accusation **not against you, but him**'

(5) Petron. 36,6: *scissor … lacerauit* ***opsonium***
'the slicer tore **the food** apart'

(6) Caes. *Gall*. 7,18,1: *Caesar cognouit* ***Vercingetorigem castra mouisse propius Auaricum***
'Caesar learned **that Vercingetorix had moved his camp closer to Avaricum**'

(7) Cic. *Att*. 3,4,8: *fac modo* ***ut uenias***
'just make sure **that you come**'

The pragmatically motivated Behaghel's Law has entirely to do with the packaging of information and is in a kind of complementary relationship with the syntactically motivated Wackernagel's Law governing clitic placement. While Behaghel makes it possible for information-heavy complements to be

separated from the verb and placed in final focus position (Fr. *Jean lave **sa voiture*** 'John washes **his car**'), Wackernagel assures that information-light complements are kept with the verb (neatly illustrated in a modern context by Fr. *Jean **la** lave* 'John washes **it**'). The original nonsyntactic Behaghel process is eventually reanalyzed and drawn into the syntax as a principle of word order (object follows verb).

3.1.2. Phonetic erosion of case-endings

Traditional assessments of word order change in Indo-European languages are usually built in no small part around the loss of case endings in nouns and pronouns. These losses are reflected widely across the Indo-European family. The process is seen as operating in stages, beginning with the reduction of final syllables and the concomitant loss of the distinctiveness of the case endings, which in turn reduces their grammatical efficiency. The resulting inefficient nominal morphology triggers an adjustment in the word order, forcing a fixed (SVO) order to compensate for the loss of the grammatical marking on the nouns and pronouns. This is a common-sense scenario which can be applied to parallel developments in the evolution of Indo-European languages other than Latin and Romance, including much of Germanic. But attractive as it is, this account leaves open many questions. First, there is always the question of the origin of the change and its chronological connection with the fixing of word order. Did the erosion of the ends of nouns take place first, and then word order swooped in to save the day? And what kinds of phonetic process were driving this erosion, especially because they seemed to select nouns and pronouns but leave the verbal system untouched, at least for some dialects of Romance such as Italian and Spanish? Phonetic laws are supposed to be blind, applying to appropriate candidates based entirely on their phonetic makeup. Word class isn't supposed to matter. So how then can we account for the fact that the nominal inflectional system of Latin is devastated by phonetic change somewhere in the transition from Latin to Romance, right to the point that case can only be recovered by etymological analysis, whereas the verb of, say, modern Italian is nearly as richly inflected as was its Latin ancestor? (French, on the other hand, shows extreme erosion in both the nominal and verbal systems.) If the order of events is phonetic erosion first, followed by the therapeutic establishment of fixed word order to keep

the language viable, then why do we find evidence of emerging dominant SVO order in Augustine (4th–5th century), but no evidence of dropping or merging cases? We do not deny that the two phenomena are probably related, only that there is little evidence for the simple cause–effect relation usually assumed and recently even challenged (by Sornicola 2006, among others).

Frequently linked with the preceding is the development of obligatory subject pronouns in French (Adams 1987). As a matter of fact, in Latin this feature never took root; that is, there is no time nor text in which subject pronouns are required. The distribution of subject pronouns seems to us to be covered by developments related to factors such as topic continuity or topicalization, probably not by syntax. As for French, we are sympathetic to the position that obligatory subject pronouns are due to substratal Germanic influence (Wartburg 1946), no doubt reinforced by the fact that phonetic erosion of inflections is a distinctive feature of French linguistic history. It is an innovation of French, not an archaic retention from Latin.

The loss of distinctive case markers due to erosion is a strong example of the ripple effect of phonological change on morphosyntactic structure. Simply put, the Latin case endings were made up of sounds, particularly vowels and final *-m* and *-s*, which are susceptible to normal phonetic mutations. In this sense the processes behind case erosion are clearly based on structural actions and not on typological or functional strategies. What remains interesting, however, is that phonological processes affecting case erosion seem to be targeted at the nominal system. This contravenes the principle of the regularity of sound change, which specifies that sound change is not sensitive to morphological class. In light of these "guided" sound changes, one might speculate that in fact there is some functional principle at work such as the preservation of information, which ensures the maintenance of the minimum systemic requirement of meaningful elements.

3.1.3. Prepositional usage

> In Late Latin we have two opposite tendencies regarding the use of pure case forms and prepositions. On the one hand, we have the tendency to replace the case forms in a growing number of functions by expressions with prepositions and, on the other hand, there is a tendency to use case forms in functions where Classical Latin preferred expressions with prepositions. (Haverling 2006: 345)

The relationship between case endings and prepositions may be the most misunderstood feature of the evolution of Latin syntax. There is an assumption propagated by some influential literature that there is an automatic correlation between the purported demise of the case system and the corresponding increase in the use of prepositions. As pointed out earlier, the case system remains largely intact all the way through the period of Gregory of Tours; that is, to the end of Latin in the sense of normal evolution and available literary evidence. We acknowledge the existence of significant phonetic variation in the makeup of the cases at this stage in the history of Latin, as often indicated by the inconsistent and even messy spelling in the manuscripts and inscriptions on which we rely. But the variation we find in the case system is no more radical than what we find in (admittedly nonnormalized) Republican inscriptions, which have never been invoked as evidence of a dying case system. The point is that the case system is solid and fully capable of performing the tasks assigned to it by the syntax. The claim that prepositions are moving in to fill the increasing void caused by the collapse of the case system remains undemonstrated. Of course certain case functions are taken over by prepositions in the history of Latin (see Luraghi, this work, vol. 2). But this takeover is a feature of Latin proper, beginning even in Late Proto-Indo-European times, when bare case functions were partly replaced by case plus post-/prepositions and then eventually prepositions alone. The process was completed only in the Romance period and indeed may be taken as one of the defining traits distinguishing Latin from Romance.

To account for the spread of the prepositions over bare cases, we find Pinkster's (1990) functional analysis attractive, namely, that prepositions were used more extensively with abstract nouns than with concrete nouns. The reason for this, Pinkster suggests, is that the semantic relationship between abstract nouns and their predicates is less predictable with abstract nouns than with concrete nouns. Thus they needed a "semantic prop" to carry the intended meaning. Prepositions were also favored in contrastive expressions. For Pinkster, the gradual intrusion of prepositions into the system spread lexically and took root rather late in the history of Latin. This process was facilitated, in our opinion, by the phonetic erosion which was gradually taking place as well, resulting in a kind of conspiracy of phonological, morphological, and lexical factors which all together created a new system in the Latin nominal phrase. Thus the increase in the use of prepositions in Latin is

the result of greater explicitness brought about by a functional move toward diagrammaticity and economy, with a more direct relationship between the meaning of a case and its formal expression.

3.1.4. From postposition to preposition

Internal evidence in the form of archaic postpositions like *cum* in *mecum*, as well as evidence from Umbrian, clearly indicates that Italic, and Proto-Indo-European before it, was at one time postpositional (postpositions survive robustly in Vedic (Macdonell 1987) and Hittite (Hoffner and Melchert 2008), for example). Postpositions are said to be harmonic with OV word order, which is supposed to be the original order for Proto-Indo-European and Proto-Latin.

The shift from postpositions to prepositions in Latin is often explained as a harmonic readjustment to conform to an emerging VO order. But as we argued earlier, fixed order for Latin is not only an artifact of grammatical theory, but more importantly, it emerges well after prepositions are established. In fact, when Latin is first attested, it is basically already prepositional. So, in this case the *explanans*, which should account for the *explanandum*, does not seem able to trigger the process because from the chronological point of view it follows the shift instead of preceding it. This cannot be the entire story.

Given that current proposals concerning the shift from postpositions to prepositions are uniformly unsatisfactory, we permit ourselves a bit of speculation. Evidence from Latin and elsewhere in Italic clearly shows that postpositions were attached to the right edge of their host word; that is, they were cliticized; for a different view see, see Fortson (2010). This position makes them *de facto* the final element of the phrase, nominal or pronominal, as if they were **pulchra puellacum*, **urbemper, *illade*. Such a construction violates the strong principle of Latin word formation that the inflectional morpheme constitutes the extreme right border of the word. Latin tolerates a small amount of word formation with inside or nonfinal inflection, but only in the closed set of pronouns, never in nouns. All such examples of interior inflection followed by clitic, such as *eius-dem* from *i-dem*, *cuius-dam* from *qui-dam*, or *cuius-quam* from *quis-quam*, are decidedly archaic. In some forms, furthermore, the forces of the inflection-final rule are too strong, resulting in forms like *ipse* and *iste*, in which the particle is restructured as part of

the stem and inflection proceeds conventionally (*ipse, ipsa, ipsum*, etc.). We think it is reasonable to postulate a scenario in which the conflict caused by the final postposition necessitates a shift of postpositions to the beginning of their phrase, thereby preserving the “inflection last” principle. Critically, this shift aligns the newly established prepositions with their etymological and functional equivalents, the preverbs. Preverbs have the same origins as pre-/postpositions but were always attached to the left of the verbal base, never on the right (*promitto*, never **mittopro*). Thus, prepositions such as the *pro* of *pro populo* or the *ad* of *ad urbem* are brought into alignment with the *pro* of *promitto*, the *ad* of *adeo*, and so on. This shift constitutes a typological change, but not the one traditionally proposed. Far from being a word order dependency based entirely on the verb being in second position, it is based on the order of elements within the phrase. The head–modifier order still remains, just a different head and modifier. But even this change has a deeper, functional motivation, namely diagrammaticity. Preverbs and prepositions in Latin constitute an isomorphic set. It only makes sense for them to have the same transparent syntactic patterns.

3.1.5. The development of definite and indefinite articles

The development of definite and indefinite articles[4] seems to be more relevant for Romance linguistics than for the history of Latin, since the category never developed fully in Latin proper (Pieroni, this work, vol. 3), contrary to what happened in Greek (Putzu 2001). Nonetheless the trends in the direction of the Romance system are clearly evidenced in the use of *ille* and *unus* as determinants of definiteness and indefiniteness. From the typological perspective, in its earliest stages Latin seems to be a language without any article until it eventually grammaticalizes the numeral *unus* as the indefinite article and the deictic *ille* as the definite. Latin happens to be among those languages which grammaticalize both definite and indefinite articles, but we should point out that this development is not inevitable. Some languages develop only one article, always the definite. Therefore, the two Latin developments can be

4. It is worth noting here that the terms *definite* and *definiteness* are complex labels that could be further analyzed as being constituted by more basic parameters; see Lyons (1999).

considered separate. Based on the areal development through which Semitic patterns were diffused westward, Latin may have been influenced, mainly through Greek, by Semitic languages. This influence, which probably took place in the Christian period, may have played a part in this change, which constitutes one of the more dramatic typological shifts in the history of Latin and especially Romance. Far from being an isolated development which in itself simply grammaticalized a distinction that was previously not explicitly encoded, the shift to a language that marks definiteness constitutes a major break with the nonmarking Indo-European type. The Latin shift to the Greek type, where definiteness is expressed both in the noun phrase and in the pronouns, was not completed during the period of Latin proper. It is noteworthy that there is a relationship between the development of the definite and indefinite articles and patterns of quantification for representing notions such as *aliquis* or *quidam*, among others, which rely on the distinction of definiteness. However, the type of definiteness expressed by *quidam* is different from the one expressed by *ille*, from both the semantic and the pragmatic points of view. It is also worth mentioning that neither *aliquis* nor *quidam* directly survives in Romance. What is ultimately interesting here is that the notion of definiteness resided in the language long before it was encoded by articles.

The specification of definiteness by means of articles is a development in Latin which accords with several other related changes, namely the shift from *Accusativus cum Infinitivo* to finite subordination (greater specificity) and the existence of a class of quantifiers which are sensitive to the definiteness parameter (diagrammaticity). Perhaps also relevant is the highly explicit numeral system, which allows for clear marking of individuals.

3.2. Verbal constituents

3.2.1. The development of periphrastic auxiliaries

Latin, as well as other Indo-European languages such as Germanic, witnessed a major typological development by which some bound morphemes indicating aspect and tense were replaced by auxiliary verbs. The auxiliaries (for Latin, *habeo*) which replaced the bound tense and aspect markers had themselves evolved from full lexical verbs with which they still coexisted. The

verb *habeō*, for example, which has as its primary meaning in Latin ‘to have’, derives from an Indo-European root meaning ‘to grasp’ (Baldi and Cuzzolin 2005; Baldi and Nuti, this work, vol. 3). The further development in Latin of ‘to have’ from a verb of possession to an auxiliary indicating perfectivity (*habeō factum* ‘I have done’) and future tense (*facere habeō* ‘I have to do’) must be considered in a larger context. We note first and foremost that Latin did not originally contain auxiliaries as a grammatical category. The two nonmodal auxiliaries in Latin, *habeō* and *sum*, share duties in the verbal system, *sum* as the auxiliary used in the perfect passive system and in a few other constructions (we ignore here periphrastic constructions from late Proto-Indo-European or Proto-Italic such as **amānts-b*^{h}*u̯ām* or **amā-b*^{h}*u̯ām*, which underlies the Latin imperfect forms in *-bā-* such as *amābam*). As early as the Twelve Tables, and also in Plautus, we find constructions with *habeō*, the type that eventually replaced the inherited synthetic forms of the perfect such as *amāui*. What is curious about this construction is that it never became widespread in the literary language. After its early appearance it virtually disappears, surfacing sporadically, as it does in Cicero and Livy, for example.

3.2.1.1. The perfect. *Habeō* as the marker of the perfect tense shows several identifiable structural[5] stages in its development. The first stage, seen in (8)–(10) from the Twelve Tables and Plautus, shows the independence of *habeō* and the participle, which modifies the object. This syntactic configuration is still evident in Cicero and Livy, several centuries later (11).

(8) *Lex XII tab*. 3,4: … *qui eum uinctum habebit*
‘who shall hold him in bonds’

(9) Plaut. *Mil*. 48: *nullos habeo scriptos*
‘I have none written’

(10) Plaut. *Trin*. 347: *multa bona bene parta habemus*
‘we have many goods, well supplied’

(11) Liv. 39,1,16: *edita facinora habent*
‘they have mentioned the crimes’

5. We ignore here the semantic shifts which also took place; see Fruyt (this vol.).

The construction does not enter the grammar as the preferred means of marking the perfect possibly until Gregory of Tours, some 800 years after its first occurrence in Plautus. At this point the syntax of the construction seems to have changed, with the participle now reanalyzed as part of the verb, and apparently without agreement between participle and object (12). The syntactic restructuring in this example is difficult to confirm despite the apparent agreement between the accusative object and the participle. Nonetheless it is guaranteed by developments in Old Spanish and other Romance languages (on which see Loporcaro 1998), even though the form with non-agreeing participle is found only a few times in Latin. One such example is in a text from Asia Minor from the fourth century, copied in the sixth century (13). The passage is not problematic as written. But in fact phonetic neutralizations of the period make it impossible to know whether the final syllables of *omnia* and *probatum* were phonetically distinct at the time. Michèle Fruyt points out that what is needed to guarantee nonneutralization is a text with the participle ending in *-um* and the object of *habeo* ending in *-s*, as if *nullos probatum habemus*. In any case, it is clear, despite the paucity of unambiguous evidence, that by the time of Common Romance, the shift to a periphrastic perfect has spread through the verbal system.

(12) Greg. Tur. *vit. patr.* 3,1: *episcopum … inuitatum habes*
'you have invited the bishop'

(13) Oribas. *syn.* 7,48: *haec omnia probatum habemus*
'we have approved all these things'

3.2.1.2. The future. A similar line of development can be seen with the future construction *facere habeo* 'I will do', where *habeo* attaches itself to the infinitive and eventually, in Romance, develops as the inflectional endings of the future (cf. It. *farò*, Fr. *ferai*, Sp. *haré* from Lat. *facere* + *habeo*).

The origins of the *facere habeo* type can be detected long before it emerges as a tense marker. See (14) from the *Bellum Hispaniense*, written around the middle of the first century BCE:

(14) *Bell. Hisp.* 26,6: *cohortes … animo habeo ad uos mittere*
' I have it in mind to send you cohorts'

Another precursor of the construction can be found in examples like (15), from the fourth century CE *Itinerarium Egeriae*, where it has a deontic meaning (Fruyt, this vol.).

(15) *Itin. Eger*. 2,1: *ipsam ergo uallem nos trauersare habebamus ut possimus montem ingredi*
'and this very same valley, we had to cross (it) in order to be able to enter the mountain'

The first actual occurrence of the suffixed Romance future is found in the Strassburg Oaths (842 CE). Louis's oath is written in *lingua romana* and two verbs in two main clauses are in the future: *salvarai* (> Fr. *(je) sauverai*), used here with the meaning 'I will help' from Lat. *saluare habeo*; and *prindrai* (> Fr. (*je) prendrai*) 'I will take', from Lat. *prendere habeo* (16).

(16) *Oaths of Strassburg*: *Pro deo amur et pro christian poblo et nostro commun salvament, d'ist di in avant, in quant Deus savir et podir me dunat, si* ***salvarai*** *eo cist meon fradre Karlo .... ; et ab Ludher nul plaid nunquam* ***prindrai*** *qui meon vol cist mein fradre Karle in damno sit*
'For the love of God and for the common salvation of all Christians and of ourselves, from this day on, as far as God gives me knowledge and ability, I *shall help* my brother Charles here present; and I *shall make* no agreement with Lothar that, by my own will, could harm my brother Charles here present' (Fruyt, this vol.)

3.2.2. Discussion

The fixing of the word order *habeo factum* for the perfect and *facere habeo* for the future is both unexpected and contrary to the implicational principle. To begin with, *habeo factum* is VO at a time (Plautus) when we might expect OV. Furthermore, the eventual future is OV (if we take *facere* as a kind of complementary infinitive, or as object of *habeo* in any case) at a time when we might expect VO. A possible explanation of this distribution lies in a functional principle of iconicity. Syntax predicts that the word order should go a certain way, but as we have seen in the discussion of word order above,

there are certain kinds of principles or processes that can override the syntax. Iconicity is such a functional principle. *Habeo* in the perfect formation is first (to the left), indicating an iconic representation of anteriority. The future *habeo*, on the other hand, is after its complement (to the right), indicating posteriority. These strongly visual notions, which are active in many languages, are certainly powerful enough to offset the conventions of grammar. Far from being an exception to some weak word order principle, the placement of the auxiliary *habeo* is performing an important function related to information structure.[6]

3.3. Clausal constituents

3.3.1. Comparison

The expression of comparison – that is, sentences of the type *Mary is taller than Bill* – has an interesting and revealing history within Indo-European and Latin. For Proto-Indo-European we can reconstruct a syntactic pattern in which the standard of comparison was expressed by a semantic case, probably the ablative, though this is difficult to determine beyond any doubt (Hittite shows the dative). In Latin we find two syntactic constructions from the beginning, the inherited Proto-Indo-European case construction (*leo uoracior est cane*), and the particle construction (*leo uoracior est quam canis*), not to mention the marginal surpass-comparative (*leo canem uoracitate superat*), all meaning 'the lion is more ravenous than the dog'. Contrary to the general trend, by which analytical constructions tend to replace synthetic ones, the ablative comparative survives in Latin texts side by side with the particle construction. They survive not as free variants, but with a subtly consistent distribution, namely: the particle *quam* is obligatory in clausal comparison and when the comparee is in an oblique case; the ablative comparative, on

6. There may be a further, syntactic motivation, namely the fact that in the future construction, *facere* and *habeo* are coindexed to the same subject, promoting their univerbation as It. *farò,* Fr. *ferai*, etc., while in *habeo factum* there is no shared index. This innovative idea merits serious consideration; see La Fauci (2005).

the other hand, is almost obligatory when used with negatives and numerals. From the semantic point of view, it is also interesting that the ablative always entails a positive pragmatic implication, whereas the *quam* ablative entails a negative one. Only when the comparee is in the nominative case is either strategy freely available, at least in principle (Torrego 2002). The particle construction with *quam* is favored until the Romance period, when a variety of analytical possibilities are exploited, including the use of the preposition *de* plus the ablative, a construction guaranteed by the Romance developments though very rarely found in Latin itself. The Romance pattern shows a curious continuation of the Latin distribution. Italian *di* and Spanish *de* continue the pattern *de* + ablative. So, it is likely that *de* + ablative is not a variant of the original ablative of comparison, but rather that it was functionally an analytical form of genitive, which is well attested itself, especially in late texts where the influence of Greek is certain or probable. Given the well-known fact that the Latin genitive came to be replaced by *de* + ablative generally, then an interesting case of reanalysis took place: in the comparative construction the preposition *de* was reanalyzed as the pivot (replacing *quam* in some Romance languages), and not as part of the case. This creates, with both the *quam* dialects and the *de* dialects, a structural parallelism between the morphological comparison of the adjective and the syntactic construction in which it plays a part. That is, as the analytical *quam* and *de* comparatives take root and replace the ablative, this constitutes a clear case of diagrammaticity with the morphology of the comparative itself. Latin loses its productive morphological comparison of the familiar type *altus, altior, altissimus* 'high, higher, highest' or *facilis, facilior, facillimus* 'easy, easier, easiest', with only a handful of survivors such as It. *maggiore, superiore* (also intensifiers like *-issimo* in *benissimo,* etc.), in favor of the analytical construction with *magis* or *plus*, as in It. *piú alto*, Fr. *plus haut*, Sp. *más alto*, etc., 'taller'. Thus the syntax and the morphology of the comparative are diagrammatic, each transparently reflecting the analytical formation. This development is a clear signal of a general trend toward an expression type which is more lexical than grammatical. This form of expression is also supported by the survival of the "surpass-comparative" in which the strategy is lexicalized. Because it was always available as a comparison strategy, the "surpass-comparative" became in some sense extra-systemic and is therefore not included in general accounts of comparison phenomena. It becomes marginal, even eccentric, in the Ro-

mance languages, as in the Italian sentence (17), which resonates of high, even Latinate style.

(17) *Giovanni supera Marco in dottrina*
'Giovanni surpasses Marco in learning'

Principles at work in the development of the comparative constructions represent a combination of three explanatory criteria: first, a structural reanalysis of the preposition *de* to the pivot; second, the principle of diagrammaticity seems to be at work as the particle comparative becomes more transparent with the morphology of comparison, and in the process reduces the functional load on the ablative; third, there is a weak alignment with the word order since particle comparatives tend to correlate with VO word order.

3.3.2. Complementation

If there is a single construction, a *signature construction*, which marks Latin as Latin it is the *Accusativus cum Infinitivo*, a typologically restricted construction among the world's languages, basically limited to Indo-European (Hettrich 1992). The *Accusativus cum Infinitivo* is the standard means of expressing reported speech (referred to as "indirect discourse/statement" in the school grammars). It is fundamentally a construction in which the subordinate complement clause is syntactically the object of the main verb of saying, hearing, thinking, and so on (verbs of psychological perception and production). The subject of the complement clause is in the accusative case, and the verb is represented by one of its infinitives (18)–(19). An English parallel is *I consider him to be my friend* rather than **I consider that he is my friend* (cf. *I think that he is my friend*):

(18) *Ophelia dicit se patriam amare*
'Ophelia says that she loves her country'

(19) *Marcus uidit feminas de nauibus uenisse*
'Marcus saw that the women had come down from the ships'

From the earliest Latin literature until the end, the *Accusativus cum Infinitivo* stands as the defining structure of Latin syntax. Despite its syntactic centrality, however, the *Accusativus cum Infinitivo* is being threatened by

complement clauses with nominative subjects and finite subjunctive verbs, and later finite indicative verbs, already in the time of Plautus, beginning with a verb of *knowing*, which is weakly assertive (20).

(20) Plaut. *Asin*. 52: *scio iam, filius quod amet meus istanc meretricem*
'I already know that my son is having an affair with that whore'

The type which eventually replaced the *Accusativus cum Infinitivo* is known as the *dicere quod* type (Cuzzolin 1994), which is the familiar complement structure found in the Romance languages (cf. It. *Giovanna dice che Marco è bello* 'Giovanna says that Marco is handsome', Fr. *Jeanne dit que Marc est beau*). By *dicere quod* we mean both verbs of production/saying and verbs of perception/thinking. The first attested replacement of the *Accusativus cum Infinitivo* by a verb of *saying*, which is strongly assertive, occurs in the *Bellum Hispaniense* ((21); end of the first century BCE).

(21) *Bell. Hisp*. 36,1: *dum haec geruntur, legati Carteienses renuntiauerunt quod Pompeium in potestatem haberent*
'while these events were taking place, envoys from Carteia reported that they held Pompeius under their power'

The switch from the *Accusativus cum Infinitivo* to the subordinate *dicere quod* type embodies several functional principles and general diachronic trends, some of which have been previously identified:

1. The trend toward overt expression. The *Accusativus cum Infinitivo* is implicit subordination; the syntactic case (nominative) usually associated with the subject is in conflict with the morphological case (accusative) usually associated with the object. There is also a conflict between the position of the subject, which is in the usual position of the direct object, making some sentences difficult to parse and ambiguous (Calboli 1997). Some syntactic features are neutralized which are made explicit by the *dicere quod* type. A good example of a neutralized category is mood. Latin infinitives are always factual; they do not express modalities such as potentiality or optativity. In morphological terms, there are no subjunctive infinitives. Consequently, a sentence like *aliquis dicat* 'somebody might say' cannot automatically be represented as reported speech in an *Accusativus cum Infinitivo* construction*: puto aliquem dicere* means

basically ‘I think that somebody says’ and cannot be manipulated syntactically to express the potentiality of *aliquis dicat*, – that is, it cannot mean ‘I think somebody might say’. This gap can be accounted for by the fact that Latin infinitives are always factual.

2. The speaker’s commitment to the truth of the subordinate clause. There is a restriction on the *Accusativus cum Infinitivo* such that the speaker of the sentence must commit to the truth of the subordinate clause. So in a sentence like *Marcus putat magistrum esse sapientem*, Marcus can only be saying that he believes that his teacher is smart; that is, only the factual reading is possible. The sentence as it is could not be intended to mean that Marcus thinks that his teacher *might* be smart, but that he’s not sure. This restriction is removed by the *dicere quod* type, which is capable of expressing not only fact, but also potentiality, doubt, and so on within its finite subordinate clause.
3. Information structure. As a full sentence with a possible SVO structure, the complement clause in a *dicere quod* sentence has full potential to package information with the conventional devices of focusing by dislocation, topicalizing, and so on. Because of its thoroughly unusual structural makeup, the *Accusativus cum Infinitivo* has limited range on the information presentation scale. Thus it is a therapeutic change to substitute a full clause for a partial one in that speakers now have the full range of functional and pragmatic devices available to package information as with main clauses. This feature of elaboration may find a parallel in the demise of “small clause” participial constructions like (22). These marginal structures are eventually replaced by relative or pseudo-relative clauses such as *istunc qui e naui exit uidemus,* which are syntactically central.

(22) Plaut. *Poen*. 651: *istunc e naui exeuntem … uidemus*
‘we see that one exiting from the ship’

The switch from *Accusativus cum Infinitivo* to full subordinate clause, with either indicative or subjunctive verb, is clearly a therapeutic change in Latin syntax, aligning subordinate clauses structurally with main clauses and thereby contributing to the diagrammatic relation between the two. It is noteworthy that in the other Indo-European languages where the *Accusativus cum Infinitivo* developed, it was also replaced by fully developed subordinate clauses, making it all the more curious that such a marginal construction type

as the *Accusativus cum Infinitivo* came to achieve such a central position in Latin syntax in the first place.

4. Explanations and generalizations

So does the holistic approach work, joining together the insights of typology, functionalism, pragmatics, and structural mechanisms? Which ones have proven most useful, at least for the changes examined here?

The answer to the first question appears to be positive: a multidimensional methodological strategy is not only workable, but in our view necessary. Different types of changes call for different types of explanations, and once the analyst is liberated from the requirement of forcing all changes into a given framework, the results can be exhilarating. A good example of this explanatory flexibility is our proposal for the word orders of *habeo* plus participle and infinitive plus *habeo* in Latin. Such a scenario is impossible to imagine under standard accounts.

And which approach has proven most useful? It is a wholly unexpected result of this effort that functional explanations seem to capture the prize for the most consistently useful strategies to describe syntactic change. It is clear both from the pages of these volumes, and from this programmatic essay, that such categories as information load, cognitive saliency, diagrammaticity, and others are consistently at work in shaping syntactic change. Functional considerations are followed by pragmatic, then structural, and finally typological factors. This is a result we did not anticipate. Indeed, our initial ordering of the value of functional explanations would have been that it had the least potential to describe complex phenomena of the type we have investigated. We were further surprised to find typology with its implicational principle to be so marginal in explaining the changes we have examined. Typology remains a valuable tool of classification, but as a catalyst for change it has severe limitations, at least when applied to the diachrony of a single language. As for structure, broadly conceived to include borrowing, it continues to assert its value as an explanatory device. A good deal of a linguistic system is structural, so it would be foolish to think that structural processes should be excluded.

And finally, what about Sapir's "drift"? Does language have a "drift" after all, moving through time as though guided by some undiscoverable forces that urge it in a certain direction? Drift has been reformulated on more than one occasion, surfacing as a metacondition on grammar in the early generative tradition (Lakoff 1969) or, borrowing from economic theory, as an "invisible hand" (Keller 1994). Recall that Sapir saw three changes taking place which he believed to be linked by a common force, namely the loss of cases, the stabilization of word order, and the rise of the invariable word. We have considered each of these changes in one form or another, and our conclusion is that there is no such "drift" at work. Rather, we see changes on the functional, pragmatic, structural, and typological levels which when taken together produce a cumulative effect which can give the appearance of a set linked by a common thread. Sapir never was able to define or characterize drift more precisely, nor were any of the many scholars who tried after him. The reason for the failure is now clear: "drift" is an appealing myth. What we would suggest instead is that the changes observable in the development of Latin syntax are motivated in the direction of greater explicitness, use of transparent structures more than covert ones, and a maximization of functional mechanisms. The shift from synthetic to analytic type, far from being a cause, is little more than an effect of more speaker- and hearer-based processes.

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Subject index

Index of classical references

The index of classical references contains textual information on classical works cited in the text. Latin authors and their works are abbreviated according to the conventions of the *Thesaurus Linguae Latinae* (*ThLL*). Citations of some authors, especially those preserved in fragments, may vary. Since there is no standardized set of abbreviations for Greek, we have listed classical Greek authors by their full Latin name, preceded by a fully recognizable abbreviation (e.g. Xen. = Xenophon). Greek works are abbreviated so as to be maximally transparent to non-specialists. Biblical authors and works are included in the index, though other non-classical texts such as *El Cid* or *Don Quixote* are omitted. Index items from the Bible which are not marked as specifically from either the *Vulgate* or the *Vetus Latina* are listed by author or title, e.g. *Matth.*, or *iud.*